

SEE PAGE 51 FOR ALPHABETICAL INDEX

SEE PAGE 52 FOR CLASSIFIED INDEX

SCHWARZSCHILD & SULZBERGER COMPANY

WINNERS OF
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HAMS

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World's Fair, St. Louis, 1904

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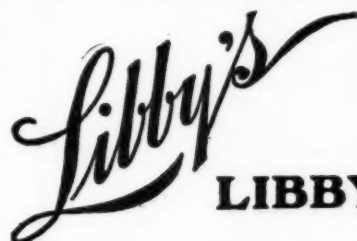
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HAM
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AM"**

Corn Fed

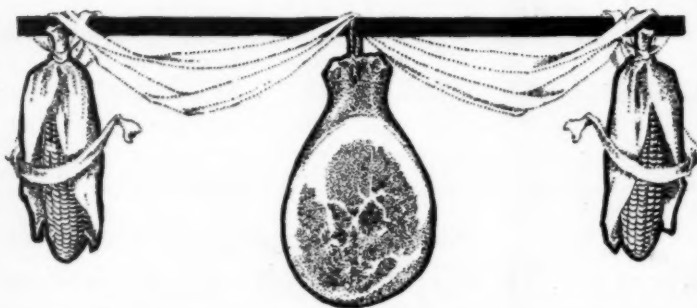
ARMOUR'S "*Star*" Hams are juiciest and most appetizing because made from the meat of scientifically fattened "porkers"—corn fed.

There's nothing like a meal of Armour's "*Star*" Ham and eggs to start the busy day right.

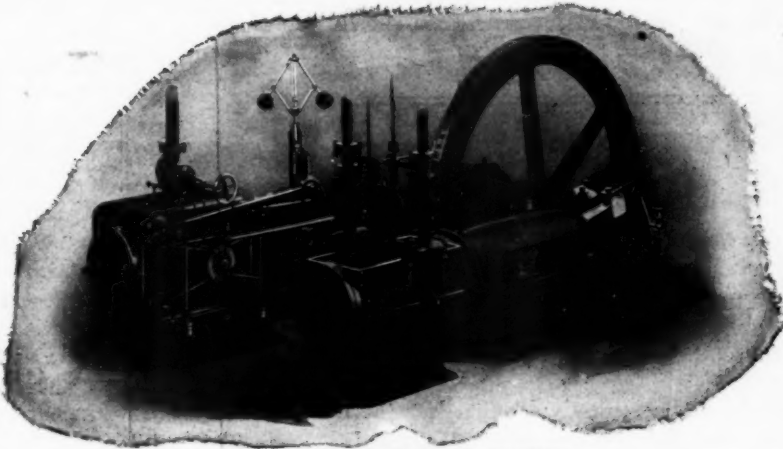
To insure getting *Armour's* ask the dealer to show you the *star* burned in the skin.

Armour's "*Star*" Hams and Bacon

Nothing finer produced than *Armour's Sliced "Star" Ham and Bacon* neatly packed in 1 lb. tins. Convenient—economical. So trimmed that all waste is removed, and mechanically sliced much thinner than can be done by hand.



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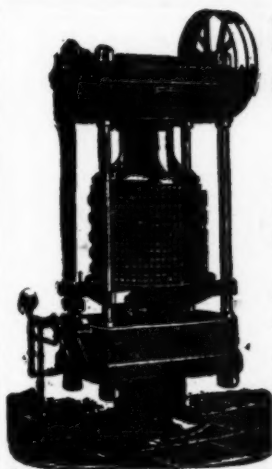
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SEE PAGE 48 FOR LIST OF BARGAINS.



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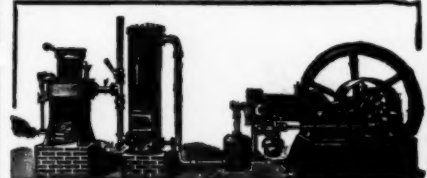
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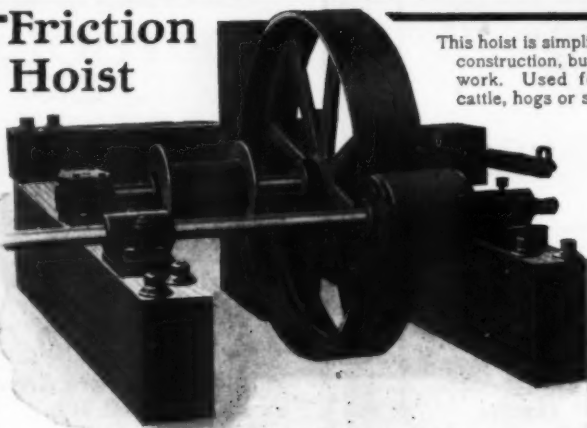
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The magnifying glass over the value figures make it the easiest scale in the world to read. As the scale is absolutely automatic, the value of the merchandise is instantly found by placing it on the scale.

SAVE THE PENNIES

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eliminate all errors in calculation. Their best friends are those who are constantly using them, for they realize the benefits to be derived and have found by practical experience that they

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They will accomplish the same results for you.

Write for our illustrated Booklet "R3"

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MANUFACTURERS DISTRIBUTORS

Where Health and Pleasure Wait

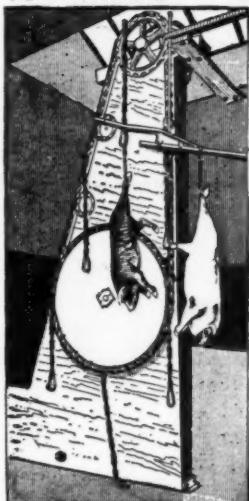
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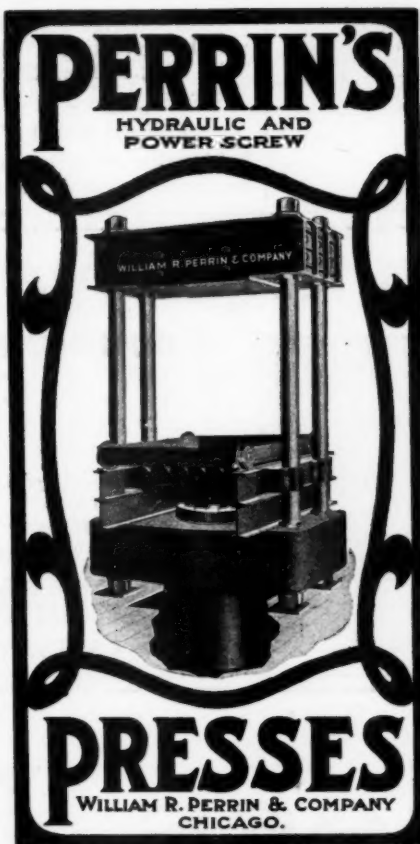
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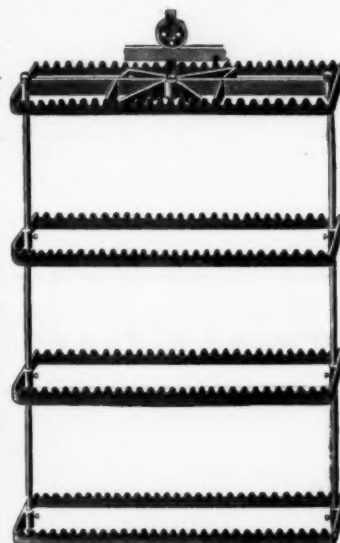
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Rings made of malleable iron. Size of rings, width 12", length 32". Length of cage over all 65". Distance from top of track to top ring 10". Cage hangs on a swivel trolley so that it can be easily turned.

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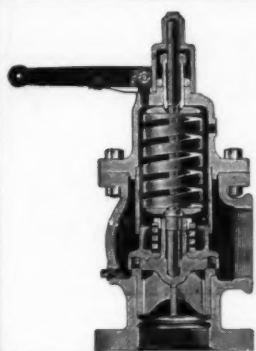
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CAPACITY, 1,000 lbs. Smoked Meats

Price, \$4.00 each

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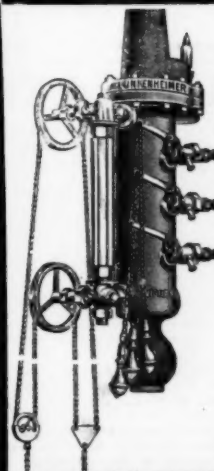
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Will positively and auto-
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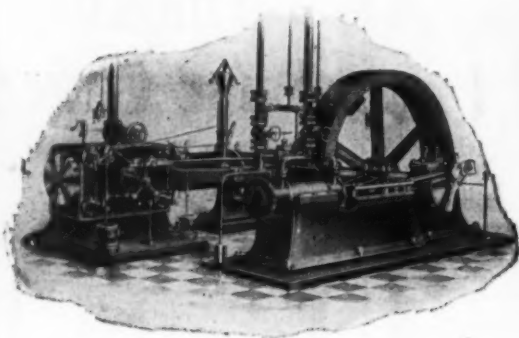
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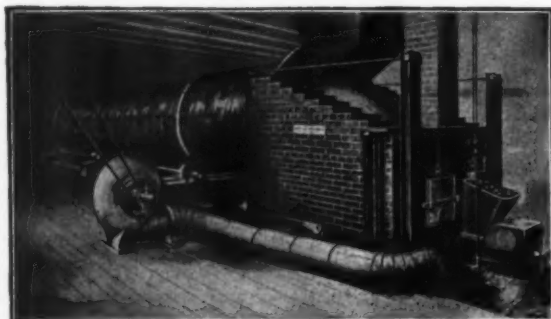
Refrigerating Machinery Branch, 1142 W. 16th St., Chicago, Ill.
Eastern Representatives, THE FAIRBANKS CO., Broome and Elm Sts., New York

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Economical

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Great Capacity



For Tankage, Blood, Bone, Fertilizer, all Animal and Vegetable Matter. Installed in the largest fertilizer plants in the country.

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AMERICAN PROCESS CO.

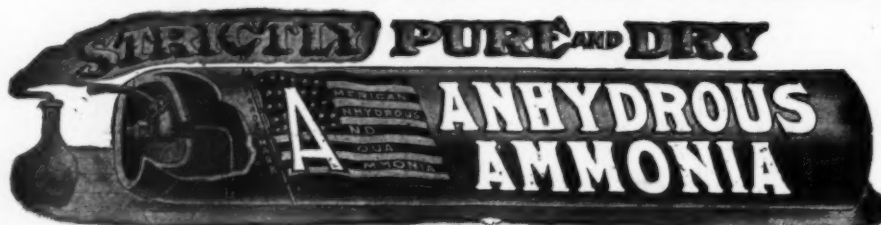
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Hogless Lard

Snowdrift = the Health = Cooking = Fat

The Southern Cotton Oil Co.: New York Savannah New Orleans

THE NATIONAL AMMONIA COMPANY



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THE NATIONAL PROVISIONER

PUBLISHED EVERY SATURDAY

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ENTERED AT NEW YORK AT SECOND-CLASS RATES.

Vol. XXXIII.

New York and Chicago, July 8, 1905.

No. 2.

FEDERAL GRAND JURY INDICTS PACKERS

Expected Result of the Three Months Star Chamber Proceeding Conducted by the Government at Chicago—Four Companies and Seventeen Individuals Included in the Return—

Four More Are Indicted on Railroad Rebate Charge.

PACKERS ARE PLANNING TO FIGHT THESE INDICTMENTS AS ILLEGAL

The federal grand jury at Chicago has indicted four of the leading packing companies and seventeen individual officers of these companies for alleged violation of the law in conspiring to form a combination in restraint of trade and interstate commerce.

Indictments were also returned against four officials of the Schwarzschild & Sulzberger Company on a charge of accepting rebates from railroad companies. This company and its officers were not included in the indictment for violation of the anti-trust and interstate commerce laws.

The corporations indicted were:

Armour & Company.

Swift & Company.

Fairbank Canning Company (The Morris firm).

Cudahy Packing Company.

Individuals Who Are Accused.

The individuals against whom the anti-trust indictments were returned were:

J. Ogden Armour, president of Armour & Company.

Charles W. Armour, president of the Armour Packing Company.

Patrick A. Valentine, treasurer of Armour & Company.

Arthur Meeker, general manager of Armour & Company.

Thomas J. Connors, general superintendent of Armour & Company.

Samuel McRoberts, assistant treasurer of Armour & Company.

Louis F. Swift, president of Swift & Company.

Edward F. Swift, vice-president of Swift & Company.

Charles H. Swift, director of Swift & Company.

Lawrence A. Carton, treasurer of Swift & Company.

D. Edwin Hartwell, secretary of Swift & Company.

Albert H. Veeder, attorney for Swift & Company.

Robert C. McManus, attorney for Swift & Company.

Arthur F. Evans, attorney for Swift & Company.

Edward Morris, vice-president of the Fairbank Canning Company.

Ira N. Morris, secretary of the Fairbank Canning Company.

Edward Cudahy, vice-president and general manager of the Cudahy Packing Company.

Indicted on Rebate Charge.

Those indicted for alleged violation of the Elkins law in accepting rebates from the railroads were:

Samuel Weil, vice-president and secretary of the Schwarzschild & Sulzberger Company.

Beth S. Cusey, traffic manager, S. & S. Company.

Vance E. Skipworth, assistant traffic manager, S. & S. Company.

Charles E. Todd, assistant traffic manager, S. & S. Company.

The indictments were returned by the grand jury on Saturday, July 1, the last day on which the jury could legally act. The presentment was made in court to Judge S. H. Bethea, who was the prosecuting attorney when the investigation began, and who has since been appointed to the Federal bench. Judge Bethea expressed himself as pleased at the result of the jury's work.

Those indicted were given until Wednesday, July 5, to furnish bonds for their appearance at trial. The amount of the bond was fixed at \$5,000 in each case. No warrants were issued. Bonds were promptly furnished for all those indicted who are now in this country. Several of the defendants are abroad on their annual vacation, and will enter appearance immediately upon their return.

The packers will fight the cases to a finish. They contend that the whole grand jury procedure and the method of attempting to secure evidence is illegal, and an injunction may be applied for to prevent further proceedings under the indictments. The packers' counsel claim that action should have been taken for violation of the Grosscup in-

junction. The statement of the chief counsel for the packers appears hereafter.

This grand jury was called on March 20 last, and was in session for the greater part of the time for over three months, while the government attorneys used every means at their command, including the federal secret service, to obtain evidence upon which to base indictments. The hearings before the grand jury were secret. Neither packers nor witnesses were allowed counsel. The notorious "third degree" practices of the police station-house were said to have been used in many instances to frighten clerks and female stenographers into revealing the private business affairs of their employers. Even the wives of leading officials were arrested and put under bond to appear when wanted.

The packers' counsel intimate that novel and daring methods were employed by the government's lawyers to obtain material on which to base a pre-determined prosecution. The result was not a surprise. The packers had all along known that the government intended to indict them, regardless of the evidence obtained.

May Ask Injunction Against Government.

During the week there were many reports concerning the plan of defense to be pursued by the packers. The novel method of enjoining the government from prosecuting the indictments as returned was suggested. Habeas corpus proceedings before the United States Supreme Court were also talked of. The packers' lawyers would not reveal their plans, further than to hint that the injunction method might be adopted. Mr. Miller said on this point:

"Before we take a step we will give reasonable notice to the federal attorney. The proceeding will be by injunction, I have no doubt. I do not believe at this time that a motion to quash or habeas corpus proceedings would be desirable. I have several grounds upon which to base an injunction, but will not make public the nature of them at this time."

Five indictments had already been returned

by this grand jury before this final action. They did not affect the main question, however. T. J. Connors, of Armour & Company, was indicted for an alleged attempt to influence witnesses before the grand jury, and Joseph Weissenbach, attorney; B. S. Cusey, traffic manager; Leo S. Joseph, assistant gen-

eral manager, and George D. Hopkins, auditor, all of Schwarzschild & Sulzberger Company, were indicted for obstructing service of subpoenas. It is likely that these cases will now be dropped by the government, as it is intimated that the indictments were only a part of the government's "bluff game."

CHARGED WITH UNITING TO CONTROL TRADE

Government Attorney Explains the Nature of the Indictments—Selling Agencies for By-Products Are Declared Illegal—The Different Counts.

The indictments are explained in a statement which was issued by Assistant Attorney General Pagin, who was sent from Washington to draw them up. As soon as the grand jury reported, Mr. Pagin issued the following explanation:

"This proceeding is based upon the act of Congress, approved July 2, 1890, popularly known as the Sherman Anti-Trust law. The first section of this act makes it an offence for any person or corporation to engage in any combination in the form of trust or otherwise or conspiracy in restraint of trade or commerce among the several States or with foreign nations. Section 2 makes it an offence to monopolize or attempt to monopolize any part of such trade or commerce.

"The penalty under each section, in cases of conviction, is a fine not exceeding \$5,000 or imprisonment not exceeding one year, or both, in the discretion of the court. Of course, a corporation could not be imprisoned and the punishment by fine is the only one applicable to corporations. In all other respects corporations, which are artificial persons stand in the same attitude as individuals in proceedings under this law.

What Constitutes a Trust?

"The question as to what constitutes a 'trust' is not thoroughly settled, some authorities including in the definition of a 'trust' the idea of placing stocks of different corporations in the hands of another corporation to be held in trust and managed without the interference of the separate corporations which are thus put in combination. If this is the correct definition of a 'trust' the indictment in this case does not charge the defendants with having formed a 'trust,' there being no allegation that the stocks of the large packing companies are held in trust for the purposes of management.

"It is true that the stock of ten smaller packing concerns, previously running in opposition to the big packers, was bought up by individuals connected with the big packing corporations and placed with another corporation, organized for the purpose of holding those stocks—the National Packing Company—but this indictment makes no direct charge against the National Packing Company or any of its officers except such as were officers of the big packing companies.

"It is to be observed that when the stocks of the smaller companies were purchased as above stated, not merely the controlling interest of each of the smaller companies was acquired, but all the stock was bought up, so that the purchasers were in a position to wipe out of existence the companies so bought up. On this point the National Packing Company differed from the Northern Securities case, lately decided by the Supreme Court of the United States. In the latter

case only the controlling interest of the railroads concerned was bought up and put in the hands of a third corporation for management.

"The first and second counts of this indictment pertain only to beef sold in domestic trade. The ninth and tenth counts pertain to beef sold in foreign trade. The third count charges a conspiracy in restraint of trade and commerce among the States and with foreign nations in fresh, dried, smoked, cured, canned and pickled meats, and in certain by-products of the packing industry, to wit: sausage casings and containers, oleo stock, stearine and oils, as well as in butter, eggs and poultry.

Charges of Restraining Trade.

"The count charges that the trade which the defendants were carrying on in the above named commodities was to be restrained in several ways:

"First—Competition in the buying of cattle at the stockyards in different cities was to be prevented and destroyed by the defendants, requiring their purchasing agents to refrain from bidding against each other.

"Second—Competition as to the sale of the above commodities in foreign and domestic markets was to be prevented and destroyed by the defendants fixing non-competitive and unreasonable prices for such commodities, and requiring their reports in the different markets to fix prices by agreement from day to day, according to what the market would stand.

"Third—The supply of the above commodities was to be curtailed and restricted whenever necessary to the maintenance of the prices so fixed.

"Fourth—The United States was divided up into territories between the defendants, and each was to keep its own territory, without interference by the others.

"Fifth—There was a division as to the volume of trade allowed to each defendant in a given market. If one packer sold more than his percentage during a given week he was obliged to pay an 'ante' of so much per hundred weight, according to the territory in which the matter occurred, into a pool to cover the excess of sales, and this fund was divided among the packers who fell short in their sales.

Selling Agencies Are Disapproved.

"Sixth—Certain corporations, to wit, the Aetna Trading Company and the Oppenheimer Manufacturing Company, were to be appointed exclusive agents of the defendants to handle the sausage casings and containers, and those companies were to make arrangements with the several large concerns which had been handling such merchandise in the markets of the world for working in harmony and controlling the output and the

price of the merchandise. This scheme involved the destruction or 'tanking' of large quantities of casings whenever the supply was too great.

"The Kenwood Company, another corporation, was to handle oleo oils and products on substantially the same lines, excepting that there was to be no destruction of these commodities. These agents of the packers were also to make contracts with small packing concerns throughout the country for taking their output of casings, and these casings were either to be destroyed or handled in connection with the goods of the packers.

"The fourth count charges that the same matters mentioned in the third count as being in restraint of trade and commerce constituted an attempt on the part of the packers to monopolize such trade and commerce.

"The fifth count specifically covers the by-products, casings and containers, oleo stock, stearine and oils, and describes a conspiracy in restraint of trade to be effected in the same way as set forth in the third count mentioned.

"The sixth count charges the casings conspiracy to be an attempt to monopolize trade and commerce in that commodity in the United States and in foreign countries.

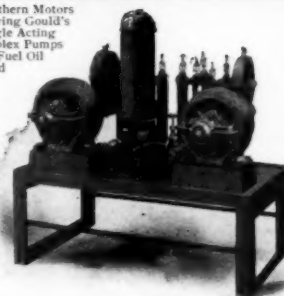
Concerning The National Packing Company.

"The seventh count sets forth the particulars concerning the organization of the National Packing Company and charges that the object and effect of that organization was to destroy competition, not only between the packers who were interested in the National Packing Company, but between the ten smaller packing companies which were consolidated by the device of organizing the National Packing Company, and this is described as a conspiracy in restraint of trade and commerce.

"The eighth count makes the organization of the National out to be an attempt to monopolize the same trade and commerce.

"The seventh count covers only meats and by-products."

Northern Motors
Driving Gould's
Single Acting
Triplex Pumps
for Fuel Oil
Feed



PUMPING COSTS LESS

when done by Northern Motors. A complete line of electrical equipment; easily applied, economically operated.

Prompt shipments of Northern Machines from stock.

Leaflet No. 22,125.

Northern Electrical Mfg. Co.

ENGINEERS—MANUFACTURERS.

MADISON, WIS., U. S. A.

533

SAYS PACKERS HAVE BEEN PREJUDGED

Their Counsel Declares the Government Has Already Decided the Case—Have Not Violated the Law Since the Grosscup Injunction.

The packers' side of the case was presented in a statement issued by John S. Miller, chief counsel for the indicted concerns and individuals. Mr. Miller said:

"I ask for the packers who have been indicted the withholding of judgment until their side of this matter can be properly presented and known. It should be understood that this investigation was altogether *ex parte*, or from one side. The packers have had no hearing at all.

"These indictments are the result of a searching attempt during three months to get the evidence on which they are based. I think the investigation was instituted and carried on with the previous conviction, not based upon evidence, that the accused were guilty, and the thing to accomplish was to get the evidence.

"If there has been any such combination of the packers in the meat business since the injunction of Judge Grosscup was entered, now over three years ago, such combination is a violation of that injunction.

"It has been frequently stated that the purpose of the government in this investigation was to ascertain whether that injunction had been observed or violated. The usual method in such cases is to present the matter of violation of an injunction to the court granting the injunction for hearing and redress, in that case both sides are heard, and if that method had been pursued here the hearing would have been an open and not a secret one; evidence on both sides would have been heard and the matter openly determined upon a full hearing.

"The usual method was not followed here, and the finding of an indictment is not taken as any evidence at all of the defendant's guilt.

"The packers have been prejudged, and indeed, condemned by epithet—by being called a 'Beef Trust,' by continued and repeated charges, without proof, and by gross falsehood and misrepresentation. The Garfield report accurately stated the facts with respect to the packing business, but it did not agree with the exaggerated and false charges that had been made in the sensational press and elsewhere.

"The packers are not violators of the Sherman act. They have endeavored in the best of faith to comply with the injunction of the federal court. In my opinion they have done so. I recognize, however, the difficulty of determining in every case what the Sherman Anti-Trust act, which is couched in most general terms, means.

"It forbids any contract, combination or conspiracy in restraint of trade and any attempt to monopolize trade. It gives no definition of what constitutes these offences, and the courts have given no adequate definitions. Under this law there is no line which is visible or which can be discovered by the merchant, which divides that which is legal and within his right and commendable from that which is prohibited and criminal.

"I am confident that the packers have fairly conducted their business within the lines of the injunction and the law, and that any rule which would make them violators of the law would destroy as criminal most of the business transactions of the country, and that the Sherman Anti-Trust law as so administered, instead of being a law to promote the freedom of trade and prevent restraints thereof, as was intended, would itself greatly restrain and destroy trade."

DECIDES AGAINST REFRIGERATOR CAR LINES

The Interstate Commerce Commission on Monday handed down a ruling in the Michigan fruit case, in which it was held that the icing of refrigerator cars was a part of the regular transportation service of railroads and that the rates on fruit charged by the refrigerator car company were from 15 to 30 per cent in excess of a reasonable charge. In his opinion, Commissioner Prouty said:

"During the performance of the service of transportation the car is to every practical intent the car of the railroad company using it, and the measure of responsibility under which the railroad company rests to the shipper for the sufficiency of the car is exactly the same, whether it obtains the equipment by purchase or lease."

By this decision private cars are declared to be subject to all the regulations of common carriers, and are brought directly under the provisions of the Interstate Commerce law. The case was vigorously fought by the car lines, the railroads interested, the Pere Marquette and the Michigan Central making practically no defense. Heretofore the car lines have not been compelled to file any schedule of rates with the government, the railroads maintaining that refrigeration was a mere incident to the transportation service.

Commissioner Prouty on this point holds: "Refrigeration being incumbent upon the car-

rier as part of the transportation, the charge for that service stands like any other charge for transportation. It is the duty of the carrier to publish, file with the commission and observe its refrigeration charges, and the commission has the same jurisdiction to inquire into the justice and reasonableness of such charges as any other charge for the transportation of passengers and property."

By the decision any charge in excess of \$2.50 a ton for the actual ice used in the cars is declared unreasonable and excessive.

NEW FOOD INSPECTION RULES.

New rules for the inspection of food imports at the port of New York by chemists of the Department of Agriculture were put in force on July 1 under orders from Secretary Wilson, and with supplementary orders to customs officials from the Treasury Department. The changes were made as a result of complaints of food importers that their shipments were delayed because of the food inspection methods to such an extent as to greatly hamper their business. The Agricultural Department now has its branch laboratory at the New York Appraisers' stores in good working order, and under the new rules the chief chemist is given more authority to act on the results of his inspections. It is expected there will be less complaint hereafter.

NATIONAL RECIPROCITY CONFERENCE.

The first practical step toward arousing public sentiment for the conclusion of reciprocity treaties with Germany and other countries which are about to put up the bans against American products—particularly those in the food line—has just been taken in Chicago. At a meeting of representatives of the livestock, grain, meat and other trade interests it was decided to call a national reciprocity convention, to be held in Chicago about the middle of August.

The call for the conference was signed by the Chicago Commercial Association, the National Live Stock Association, the Chicago Board of Trade, the Illinois Manufacturers' Association, the National Live Stock Exchange, the Millers' National Federation, the American Shorthorn Breeders' Association and the National Association of Agricultural Implement and Vehicle Manufacturers. Alvin H. Sanders, of Chicago, chairman of the executive committee of the International Live Stock Exposition, was made chairman of the committee on arrangements for the conference. Other members are William A. Harris, former Senator from Kansas, and William E. Skinner, general manager of the International Live Stock Exposition.

"This convention," said Mr. Sanders, "is called for the purpose of crystallizing the growing sentiment of the west in relation to the important matter of broadening the markets for our agricultural products in continental Europe. From the date of the summary abrogation of the Blaine reciprocity convention down to the burial by the Senate Committee on Foreign Relations of the last of the Kassel treaties, nobody in public life seems to have made any aggressive effort to right the wrong that has been quietly endured all these years by our producing interests.

"We propose to ask our senators and representatives to exercise their political power, regardless of party, in behalf of fairer trade relations with Europe as well as with the Orient."

"After the new German tariff goes into effect the United States will furnish very little of Germany's vast imports of bread and meat," said A. M. Compton, chairman of the Chicago Commercial Association, "and our farmers will suffer an enormous loss by losing this market. We have been shut out of France many years by a similar high tariff. In 1891-2 and in 1897-8, owing to short crops in France, their prohibitive tariff on our wheat was suspended. In our fiscal year 1892 they took more than 40,000,000 bushels, and in the year ending June 30, 1898, they took more than 30,000,000 bushels."

"The German government has made no secret of the fact that it would like to negotiate a reciprocity treaty with us in which Germany would remove this discrimination against our goods," said John E. Wilder, president of the Illinois Manufacturers' Association. "Something certainly should be done by our government. American manufacturers are selling goods in every country in the world. And whenever there is an advance in the tariffs of these countries which restricts our trade the effects are felt at once in the industries of this country."

Know what's in your by-products. Stillwell-Provisioner Laboratory, 36 Gold street, New York.

MAKING CONCENTRATED TANKAGE

By George E. Dyck, Ph. G.

(Continued from last week.)

The principle and system incorporated into the evaporators previously described are practically unique in the machines manufactured by the Walburn & Swenson Company, of Chicago. This state of affairs is due mainly to the economy and efficiency with which these vacuum pans can be operated in the hands of any intelligent employee, and also to the very limited amount of repairs occasioned from long-continued usage. Machines made by this concern are to be found in all of the more important establishments where evaporation of liquids becomes necessary.

Accompanying is shown a view of the double-effect installation of these evaporators, which in this instance are used for the manufacture of both glue and "stick." The small pump shown in the foreground is the one referred to, serving the double purpose of maintaining a vacuum in the first effect and of ejecting the water of evaporation produced in this effect by way of the flues of the second or finishing effect. Since the vapors of the first effect pass the flues of the second one at a lower temperature, naturally, it follows that in order to effect evaporation in this latter pan a higher vacuum must, of necessity, be obtained here. Such an increase of vacuum is produced by the installation of a condenser where the vapors from the second effect are cooled by the flow of a spray of cold water, thus creating additional vacuum by condensation.

Maintaining the Vacuum.

The maintenance of the proper vacuum in each individual pan is the equivalent of the successful operation of the machine, and must

be left to the operator in charge. A large pump connected with the upper part of the second pan, by way of the condenser, produces the high vacuum in this effect, while a connecting pipe between the front steam chamber and the boiler proper serves the purpose of communication between both pans for the object of producing the desired equilibrium of vacuum.

Vacuum gauges attached to the upper front plate indicate the vacuum in inches in each individual pan. An additional mercury gauge will be found of decided advantage. It is generally considered that a vacuum of 15 inches in the first pan and of 25 inches in the finishing pan, allow of very satisfactory evaporation to be obtained. The amount of steam admitted, and of cold water allowed to flow through the two pumps and the condenser, as also the speed of the pumps themselves, are all means by which the proper vacuum may be maintained.

Operating on a double-effect machine of the manufacture mentioned, the writer has succeeded in evaporating in excess of 1,300 gallons per hour, after the machine had been in continuous service for over five years, necessitating but inconsiderable repair during that entire period, the renewal of the rubber gaskets referred to being the principal cause for an occasional shutdown. The pans in consideration have a flue length of ten feet and contain 162 copper flues in each pan. The tank water is generally evaporated to a density of from 28 to 30 degrees BE. at a temperature of 167 degrees F., when an auxiliary pump is employed to withdraw the semi-solid "stick"

into the storage tank or vat, which latter should be provided with a closed steam coil in order to prevent the substance from becoming too heavy through cooling, as also from becoming sour.

The "Stick Rollers."

The "stick rollers" are the latest acquisition in the field of fertilizer machinery, while their successful operation, wherever installed, is winning for them universal favor and popularity. These drying rolls, being a comparatively recent invention, reduce the tank water which has been evaporated, to a density of 28 degrees Beaume, to a commercial dryness; that is, to such a low percentage of moisture as to permit of the stick being disintegrated in a mill of suitable size and construction into a powder passing a screen of from 6 to 10 meshes per square inch. The construction of these stick rollers, although easy of explanation, need not be further treated here and at this time.

The advantage has been demonstrated and is usually observed of adding to the semi-liquid stick some suitable chemical by means of which a running of the dried substance may be avoided. We may be well justified in stating that it is extremely difficult to store the dried concentrated tankage in its pure state without the addition of some such chemical. Various substances have been tried to obtain this end in view and of all such considered the mineral sulphates appear to give the more satisfactory results, the selection of any particular sulphate being then a matter of cost and availability.

Caring for "Stick."

"Stick" is a very hygroscopic fertilizing material, and should be kept in a dry room, protected from the moisture-laden atmosphere during the wet season, but is probably best cared for when mixed into another high-grade tankage of a more fibrous texture to prevent it running together and caking.

An evaporated stick of 28 degrees B. density contains, approximately, 58 per cent. of solid material, the balance being water. It is the purpose of the rollers to still further reduce this water to a small fraction of from 5 to 7 per cent. of moisture in the dry material. The means of accomplishing this is the heat of live steam confined in the rollers, and radiating therefrom through a thin coating of the stick which happens to have adhered thereto while the former were rotating through the liquid mass.

Disintegration is easily perfected, care being taken to thoroughly cool the dried stick before feeding the same into a mill. Large pieces will require a reduction in size, according to the feed-hole of the disintegrator employed.

Properly handled, "stick" analysis as high as 16.50 per cent. of ammonia at a moisture content of about 5 per cent. The fat should always be low, and not exceed 1 per cent. at the stated moisture percentage. While the immediate mixing of the dried concentrated tankage into other fertilizing ingredients offers many advantages, the storing of the same in substance permits of the raising of the ammonia percentage in low grade tankages whenever occasion demands, and besides to such an extent as the stipulations may require.

Know what's in your by-products. Stillwell-Provisioner Laboratory, 36 Gold street, N. Y.



DOUBLE EFFECT INSTALLATION OF TANKAGE EVAPORATORS.

STOCKS OF PROVISIONS.

The stocks of provisions on hand at the various centers at the close of business June 30, 1905, as compared with stocks a year ago, are reported officially as follows:

CHICAGO.

	*June 30, 1905.	June 30, 1904.
M. pork, new made since Oct. 1, 1904, bbls.	38,335	49,537
M. pork, made Oct. 1, 1903, to Oct. 1, 1904	5,930
Other kinds of bbl'd. pork, bbls.	35,501	27,774
P. S. lard, made since Oct. 1, 1904, tes.	161,946	124,284
P. S. lard, made Oct. 1, 1903, to Oct. 1, 1904	787
Other kinds of lard. .	31,283	27,008
S. R. middles, made since Oct. 1, 1904, lbs.	29,024,712	21,969,720
S. R. middles, made previous to Oct. 1, 1904, lbs.	24,000	18,620
Short clear middles, lbs.	445,907	467,504
E. S. clear middles, made since Oct. 1, 1904, lbs.	6,474,224	6,066,302
E. S. rib middles. .	12,286,717	12,065,197
L. clear middles, lbs. .	91,878	73,819
D. S. shoulders, lbs. .	1,002,896	538,101
Sweet pick. shoulders, lbs.	1,171,698	1,269,433
Sweet pick. hams, lbs. .	34,427,167	37,858,000
Dry salt. bellies, lbs. .	17,960,230	14,295,069
Sweet pick. bellies, lbs. .	10,963,512	11,307,961
Sweet pick. Cal. or picnic hams, and sweet pick. Boston shoulders, lbs.	10,252,953	9,996,382
Sweet pick. skinned hams, lbs.	17,185,323	10,877,965
Other cuts of meats, lbs.	13,669,016	8,207,859

Total cuts of meats, lbs. 145,980,233 135,012,002
*Includes the stocks of all warehouse men who have been heretofore reporting.

KANSAS CITY.

	June 30, 1905.	June 30, 1904.
Mess pork, bbls.	318	556
Other kinds pork, bbls. .	3,026	2,182
P. S. lard contract, 'tes. .	8,777	8,614
Other kinds lard, tes. .	5,388	5,832
Short rib middles, lbs. .	4,332,600	6,484,300
Short clear middles, lbs. .	1,090,300	2,599,000
Extra S. C. middles lbs.12,082,300	4,994,000	102,800
Long clear middles, lbs. .	393,600	1,388,300
Dry salt shoulders.	2,064,800	3,636,100
D. S. bellies, lbs.	5,348,000	319,700
S. P. shoulders, lbs.	1,512,200	12,409,300
S. P. hams, lbs.	15,950,200	4,025,500
S. P. bellies, lbs.	4,579,900	3,219,100
S. P. Cal. hams, lbs.	4,740,900	3,773,100
S. P. skinned hams, lbs. .	4,097,200	8,230,400
Other cut meats, lbs.	11,802,900	67,994,900
Total cut meats, lbs.	67,994,900	49,181,600

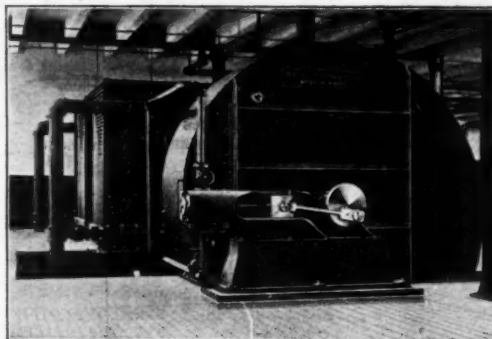
Live Hogs.

	June, 1905.	June, 1904.
Received	247,593	199,182
Shipped	1,346	17,235
Driven out	245,080	181,880
Average weight.	205	208

SOUTH OMAHA.

	June 30, 1905.	June 30, 1904.
Mess pork, bbls.	24	28
Other kinds bbl'd. pork. .	1,576	713
P. S. lard "contract" tes. .	4,056	3,886
Other kinds lard, tes. .	856	2,302
Short rib middles, lbs. .	2,274,558	3,414,222
Short clear middles, lbs. .	1,500,836	782,735

TO BE FOREWARNED IS TO BE FOREARMED



is never better exemplified than by the man who, while the heat of summer oppresses, prepares for winter's chilly blasts. It's none to soon to consider the advantages of the Sturtevant Blower System with its centralized heating coils utilizing exhaust steam, its positive distribution of air and its generous ventilation.

B. F. STURTEVANT CO., Boston, Mass.

General Office and Works, Hyde Park, Mass.
New York Philadelphia Chicago London

Designers and Builders of Heating, Ventilating, Drying and Mechanical Draft Apparatus; Fans, Blowers and Exhausters; Steam Engines, Electric Motors and Generating Sets; Fuel Economizers; Forges, Exhaust Heads, Steam Traps, Etc.

Extra S. C. middles, lbs.12,046,600	10,829,952
Extra S. R. middles, lbs.10,461,483	5,197,756
Long clear middles, lbs. .	316,511
Dry. salt. shoulders, lbs. .	1,418,508
S. P. shoulders, lbs.	1,127,221
S. P. hams, lbs.	11,166,238
D. S. bellies, lbs.	5,413,523
S. P. bellies, lbs.	3,221,897
S. P. Cal. or picnic hams, lbs.	2,893,417
S. P. skinned hams, lbs. .	4,698,798
Other cut meats, lbs.	2,882,292
Total cuts meats, lbs. .59,421,972	56,744,387

Live Hogs.

	June, 1905.	June, 1904.
Received	301,289	264,101
Shipped	21,282	8,874
Driven out	279,609	255,483
Average weight.	241	233

MILWAUKEE.

	June 30, 1905.	June 30, 1904.
Mess pork, winter p'ked (new) bbls.	5,846	3,499
Mess pork, winter p'ked, lbs.	26	764
Other kinds barreled pork, bbls.	3,856	4,028
Prime steam lard, contract, tes.	5,263	3,703
Other kinds of lard, tes. .	7,446	5,157
Short rib middles, lbs. .	2,910,547	3,625,370
Extra short rib middles, lbs.	603,849	281,538
Short clear middles, lbs. .	18,978	25,730
Extra short clear middles, lbs.	516,298	175,598
Long clear middles, lbs. .	72,070	62,836
D. S. shoulders, lbs.	506,145	201,663
S. P. shoulders, lbs.	542,150	137,450

(Continued on next page.)

STOCKS OF LARD

Cable advices to the N. K. Fairbanks Company give the following estimates of the stocks of lard held in Europe and afloat on July 1, to which are added estimates of former years, and stocks in cities named:

	1905. July 1.	1904. July 1.	1903. July 1.	1902. July 1.	1901. July 1.
Liverpool and Manchester	26,500	25,000	30,000	22,000	14,700
Other British ports	15,000	11,000	15,000	9,000	1,500
Hamburg	20,000	24,000	12,000	15,000	10,000
Bremen	1,500	1,500	1,000	2,000	1,000
Berlin	4,000	4,000	1,500	2,500	1,500
Baltic ports	22,000	18,500	13,000	13,500	9,000
Amsterdam, Rotterdam, Mannheim. .	4,000	2,000	2,000	500	1,500
Antwerp	7,000	6,000	3,000	2,000	2,700
French ports	900	1,400	1,600	1,000	1,400
Italian and Spanish ports	1,000	1,000	500	500	1,000
Total in Europe	101,900	94,400	79,600	68,000	44,300
Afloat for Europe	65,000	55,000	35,000	50,000	55,000
Total in Europe and afloat	166,900	149,400	114,600	118,000	99,300
Chicago prime steam	162,733	140,892	124,284	45,618	46,070
Chicago other kinds	31,283	21,210	27,008	11,643	14,764
East St. Louis	7,433	7,400	2,130	844	1,440
Kansas City	14,165	5,247	14,446	10,044	5,932
Omaha	4,912	2,225	6,188	5,742	4,735
New York	12,060	10,497	8,451	7,834	9,371
Milwaukee	12,709	8,036	8,860	2,473	1,347
Cedar Rapids	(!)	(!)	(!)	(!)	3,960
South-St. Joseph	7,501	9,298	2,378	5,246	2,614
Total tierces	419,696	354,205	308,345	207,444	189,533
(!) Not available.					205,703

TRADE GLEANINGS

Stanton Cold Storage Company, of Yardley, Wash., is rebuilding its slaughter houses.

Standard Beef Company, of Rye, N. Y., to deal in all kinds of meats, has been incorporated with \$10,000 capital by Bashlett Richards, Elsworth, Neb., Edmund Seymour, Pelham Manor; Robert A. Gunn, Jr., New York City.

J. & T. Schroth Packing Company, of Cincinnati, O., will build a three-story brick and iron smokehouse, at once.

A. F. Greening & Company, of Wilmington, Del., has been incorporated with \$100,000 capital to deal in provisions, cotton oil and grain.

The plant of the Boston Tripe Company at the Abattoir grounds at Brighton, Mass., was burned on June 30. Loss, \$10,000.

Allerton Oil and Grease Company of New York City has been incorporated with \$10,000 capital by Reuben Allerton, J. O. D. Cornell, J. E. Gerrodette and others.

Ryan Soap Company, of Cincinnati, O., has been organized. The capital is \$100,000 and the incorporators Michael, Richard, Matthew and Joseph Ryan and Charles J. Rentz.

The manufacturing plant of the Howell & Mullay Soap Company, of Kansas City, Kan., was burned last week. The loss will be heavy, but figures have not been given out.

The Selma Fertilizer Company, of Selma, Ala., has leased a warehouse and will soon begin operations. Cottonseed meal will be largely used. The company is a branch of the Talladega Fertilizer Company, of Talladega. Henry C. Evans, of Columbia, Tenn., is the manager.

Pearse Oil Company, of New York City, has been incorporated to deal in oils and manufacture soaps. The capital is \$35,000 and the directors, Henry T. Upson and H. W. Cleveland, of Buffalo, and Norton L. Upson, of Parkersburg, W. Va.

Laredo, Tex., is anxious to have a cottonseed oil mill and a soap manufacturing plant locate there.

Baker Land and Cattle Company, of Los Angeles, Cal., has been chartered with \$50,000 capital by Milo Baker, H. A. Baker, G. R. Whitcomb, L. A. McConnell and E. P. McConnell.

The Howard Cattle Company, of San Jose, Cal., has been incorporated with \$100,000 capital by G. Howard Thompson, Arthur Redington, F. G. Dorey, J. D. Thurman and L. P. Williams.

M. Crane Company, of New York City, has been incorporated with \$70,000 capital to slaughter hogs and cattle. Munroe Crane, of Pelham Manor; J. W. Edwards and M. C. Bacon, of New York City, are the incorporators.

The stockholders of the Arcadia Cottonseed Oil Mill, of Arcadia, La., have re-elected the board of directors with the addition of J. L. Baker, of Mt. Lebanon, and the former officers with F. T. Taylor as general manager; P. M. Atkins, president; B. Capers, vice-president, and F. F. Taylor, secretary-treasurer. The mill for the last year declared a dividend of 13 per cent.

Jacksonville Meat Company, of Jacksonville, Ill., recently incorporated, has organized with C. H. Widmayer, president; J. J. Schaffner, vice-president and Isaac Powers, secretary-treasurer and general manager.

George E. Keith Company, tanners, of Brockton, Mass., will build a three-story wooden addition to their plant, 75 by 40 feet.

The U. S. Leather Company has purchased at auction the tanneries of the Independent Leather Company at Hornellsville, East Randolph, and Elmira, N. Y., and Lanesboro, Pa., for \$130,000.

Union Tanning Company, of Jersey City, N. J., has been incorporated to deal in and manufacture leather, hides, etc. The capital is \$100,000 and the incorporators are Howard K. Wood, K. K. McLaren and Horace S. Gould, all of 15 Exchange Place, Jersey City.

A. E. Wills has resigned as superintendent of the Philadelphia works of the Baugh & Sons' Company after thirty years' active service in that position.

STOCKS OF PROVISIONS.

(Continued from previous page.)

S. P. hams, lbs.	4,441,922	5,378,153
D. S. bellies, lbs.	1,941,164	1,813,775
S. P. bellies, lbs.	824,572	1,152,910
S. P. Calif. or picnic hams, lbs.	1,086,686	752,100
S. P. skinned hams, lbs.	842,500	538,300
Other cuts of meats, lbs.	4,791,404	3,608,838

SOUTH ST. JOSEPH.

	June 30, 1905.	June 30, 1904.
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Mess pork (new) made since Oct. 1, 1904, bbls.	5	1,016
Other kinds of barreled pork, bbls.	704	715

P. S. lard in storage tanks and tierces made since Oct. 1, '04, tes.	6,080	1,659
Other kinds of lard, tes.	1,550	719

Short rib middles and rough or back bone—short rib middles made since Oct. 1, '04, lbs.	6,583,096	3,244,225
Short clear middles, lbs.	982,917	1,587,428

Extra short clear middles made since Oct. 1, '04, lbs.	5,927,032	4,666,875
Extra short rib middles, lbs.	2,686,629	2,774,878

Long clear middles, lbs.	129,974	49,562
D. S. shoulders, lbs.	376,907	443,550
S. P. hams, lbs.	7,959,117	6,612,231

S. P. shoulders, lbs.	642,642	406,570
D. S. bellies, lbs.	4,870,238	3,875,531
S. P. bellies, lbs.	3,891,405	3,820,252

S. P. Calif. or picnic hams, lbs.	2,389,225	814,269
S. P. Boston shoulders, lbs.	163,500	

S. P. skinned hams, lbs.	3,076,041	2,025,584
Other cuts of meats.	5,771,566	4,926,738

Total weight cut meats.	45,286,789	35,391,193
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Live Hogs.

	June 30, 1905.	June 30, 1904.
Received	216,818	142,433
Shipped	11,666	7,038
Driven out	204,160	135,294
Average weight	224	228

LIVERPOOL STOCKS.

	July 1.	June 1.
Bacon, boxes	17,600	20,000
Hams, boxes	6,000	7,100
Shoulders, boxes	6,700	6,100
Cheese, boxes	30,800	47,700
Butter, cwts.	2,400	1,400
Lard, tierces	5,900	6,800
Do. other, tons.	2,420	2,390

JUNE LIVE STOCK REPORTS.

Following are the official reports of the movement and slaughter of live stock at the various centres for the month ending June 30, 1905, and for the half year ending with that date, as compared with 1904:

KANSAS CITY.

	Receipts.	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	128,272	14,249	247,593	94,090	
June, 1904.	125,745	10,599	199,182	76,626	
January-June, 1905	750,045	59,424	1,325,683	643,340	
January-June, 1904	793,394	34,152	1,151,473	494,181	

	Shipments.	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	40,865	2,449	1,346	18,410	
June, 1904.	47,809	1,737	17,235	17,135	
*Jan.-June, 1905.	213,914	6,632	—	39,241	
*Jan.-June, 1904.	230,817	9,923	—	24,407	

	Consumed at Kansas City.	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	91,141	10,120	245,080	75,886	
June, 1904.	77,701	5,829	181,880	57,277	
January-June, 1905	458,985	28,456	1,294,337	514,608	
January-June, 1904	453,061	22,635	1,098,603	417,757	

Average weight of hogs: June, 1905, 205 lbs.; June, 1904, 208 lbs.

*Feeders.

ST. JOSEPH.

Receipts.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	29,628	2,361	216,818	47,770
June, 1904.	36,802	2,814	142,433	29,325
Jan.-June, 1905.	197,488	11,624	1,011,558	577,971
Jan.-June, 1904.	231,973	12,019	861,647	395,409

Shipments.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	6,310	33	11,666	3,213
June, 1904.	10,449	808	7,038	3,483
*Jan.-June, 1905.	45,247	2,257	2,319	8,756
*Jan.-June, 1904.	58,084	4,465	508	3,158

Consumed at St. Joseph.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	23,390	2,248	204,081	43,152
June, 1904.	26,242	1,831	135,187	24,696
Jan.-June, 1905.	140,377	8,608	987,379	437,335
Jan.-June, 1904.	152,709	6,855	845,879	276,128

Average weight of hogs: June, 1905, 224 lbs.; June, 1904, 228 lbs.

*Feeders.

SIOUX CITY.

Receipts.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	37,568	253	169,855	618
June, 1904.	33,113	278	113,385	1,241
Jan.-June, 1905.	223,022	1,911	709,015	9,313
Jan.-June, 1904.	159,181	1,392	600,167	7,069

Shipments.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	30,577	10	54,208	221
June, 1904.	28,355	35	66,313	710
*Jan.-June, 1905.	135,862	336	280	1,118
*Jan.-June, 1904.	97,940	163	106	561

Consumed at Sioux City.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	6,025	229	115,581	893
June, 1904.	3,342	243	47,044	505
Jan.-June, 1905.	68,032	1,453	557,301	5,668
Jan.-June, 1904.	27,977	1,132	266,869	2,591

Average weight of hogs: June, 1905, 238 lbs.; June, 1904, 236 lbs.

*Feeders.

ST. PAUL.

Receipts.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	11,600	5,234	72,376	19,594
June, 1904.	16,193	5,132	81,030	9,941
Jan.-June, 1905.	142,672	—	405,556	212,641
Jan.-June, 1904.	99,886	—	524,254	284,802

Shipments.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	8,726	2,193	2,890	10,883
June, 1904.	11,356	3,165	6,924	3,594
Jan.-June, 1905.	89,253	—	20,290	176,338
Jan.-June, 1904.	72,024	—	43,259	228,812

Consumed at St. Paul.*

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	3,400	3,117	69,904	11,021
Jan.-June, 1905.	45,133	13,091	475,358	87,575

Average weight of hogs: June, 1905, 212 lbs.

*Includes St. Paul and Duluth butchers.

OMAHA.

Receipts.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	73,306	—	301,280	64,161
June, 1904.	57,218	—	264,101	44,843
January-June, 1905.	426,341	—	1,299,705	740,712
January-June, 1904.	453,339	—	1,355,942	605,373

Shipments.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	22,934	—	21,282	17,682
June, 1904.	10,690	—	8,574	9,763
January-June, 1905.	119,429	—	76,924	273,623
January-June, 1904.	110,400	—	40,161	182,857

Consumed at South Omaha.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	54,566	—	279,600	44,716
June, 1904.	45,891	—	255,483	34,154
January-June, 1905.	306,921	—	1,222,781	467,089
January-June, 1904.	342,930	—	1,315,781	512,516

Average weight of hogs: June, 1905, 241 lbs.; June, 1904, 233 lbs.

DENVER.

Receipts.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	59,310	—	16,298	7,656
June, 1904.	54,747	—	11,070	11,498
January-June, 1905.	158,501	—	111,269	115,229
January-June, 1904.	122,234	—	91,124	54,782

Shipments.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	54,928	—	66	2,813
June, 1904.	51,024	—	140	5,031
January-June, 1905.	133,375	—	2,143	78,310
January-June, 1904.	98,396	—	1,276	21,900

Consumed at Denver.

	Cattle.	Calves.	Hogs.	Sheep.
June, 1905.	3,104	—	16,232	3,843
June, 1904.	3,677	—	10,930	6,467
January-June, 1905.	20,511	—	166,226	36,921
January-June, 1904.	19,142	—	80,848	32,882

THE STILLWELL-PROVISIONER OFFICIAL CHEMISTS of the
LABORATORY, 36 Gold Street Branch: Floor A. Produce Exchange
NEW YORK

THE BEEF INDUSTRY

Report of James R. Garfield, Commissioner of Corporations, United States Department of Commerce and Labor.

CHAPTER III.—PROPORTION OF THE BEEF BUSINESS OF THE UNITED STATES CONTROLLED BY THE SIX LEADING PACKING COMPANIES.

(Continued from last week.)

Practically all the cattle slaughtered by the six companies are inspected at slaughter by the Bureau of Animal Industry. Their reports show that, in 1903, 5,521,697 cattle were inspected for these companies, including 17,983 cattle passed for the Cudahy Packing Company at Los Angeles, Cal. This total includes the inspections at a few small plants indirectly controlled by some of these companies. Mr. Edward F. Swift, in a statement to this bureau, estimates the number of cattle slaughtered by the six companies for that year at 5,458,000. It appears probable, therefore, that these companies purchased about one-half of the cattle above one year old, as computed in the preceding section, that were sold for slaughter in the United States in that year. If the total slaughter of cattle in the United States, as measured by the computed cattle supply of about 12,500,000, be taken, the proportion of cattle killed by the six companies is still 45 per cent.

Of the total inspections of cattle by the Bureau of Animal Industry, the six companies kill a much larger proportion. Of course, many of the cattle slaughtered are not included in these inspections, as they are confined almost entirely to establishments which are engaged in interstate trade. They do, however, include most of the cattle sold in those cattle markets in which the surplus product of the great cattle-producing section in the middle West must be sold. The table following shows that the six leading packers killed 5,503,714 cattle, or 89.5 per cent., and the Armour, Swift, Morris and National companies 4,468,857 cattle, or 72.7 per cent. of all inspections by the Bureau of Animal Industry east of the Rocky Mountains in 1903.

CARCASSES PASSED AT SLAUGHTER BY INSPECTORS OF THE BUREAU OF ANIMAL INDUSTRY IN 1903 AT CITIES EAST OF THE ROCKY MOUNTAINS.

City.	Six western packers.		Four leading packers.		Total number.
	Number.	Percent. age of total.	Number.	Percent. age of total.	
Chicago	2,072,421	95.8	1,808,182	83.5	2,164,413
Kansas City	999,292	99.6	667,838	66.6	1,003,029
East St. Louis and St. Louis	656,742	96.5	656,742	96.5	680,795
Omaha	728,374	100.0	514,795	70.7	728,374
St. Joseph	394,280	99.1	394,280	99.1	398,042
St. Paul	65,618	97.5	65,618	97.5	67,271
Fort Worth	225,588	100.0	225,588	100.0	225,588
Sioux City	64,665	100.0	—	—	64,665
Total of eight cities	5,206,982	97.7	4,383,048	81.3	5,332,180
New York	247,106	70.7	110,601	31.6	349,630
Boston	25,213	63.6	25,213	63.6	39,618
All other cities east of the Rocky Mountains	24,412	59.9	—	—	429,011
Total	5,503,714	89.5	4,468,857	72.7	6,150,439

It is true that the retail butchers, who probably slaughter 3,500,000 cattle annually in cities of under 50,000 inhabitants, do not as a usual thing come into direct competition with the six companies in buying their cattle at the packing centers. There can be but little question, however, that if these companies should succeed in lowering the price of beef cattle in the large packing points, fewer would be shipped to those points. The result of this would be a lower price for beef cattle in the smaller towns and a stronger competition with the packers by the small butchers for the local beef business.

Aside from the six companies, there are very few packing companies in the country that

do a sufficient business to be considered as individually of importance in influencing the price of cattle. The most important of these are the following: The Indianapolis Abattoir Company, which slaughtered 47,026 cattle in 1903; Kingan & Company of Indianapolis, which slaughtered 74,598 cattle the same year; The St. Louis Union Packing Company, whose constituent companies slaughtered 22,954; The Jacob Dold Packing Company, of Buffalo, which slaughtered 31,446.

Mr. Edward F. Swift expresses the opinion in his statement that the six companies killed considerable less than half of the total number slaughtered in the United States. The opinion, however, was probably based on the large estimate given by him of the total slaughter of the country for 1899. Mr. J. Ogden Armour says in the statement returned by him to this bureau that in his opinion the six companies killed from 40 to 50 per cent. of the total slaughtering of cattle in the United States.

Competition for Big Packers.

The National Provisioner, in commenting on competition against the large packers, said in its issue of April 2, 1904:

"Those concerns commonly referred to as the 'meat trust' are Armour & Company, Swift & Company, Nelson Morris & Company, the G. H. Hammond Company and the Fowler interests. Since the first grouping the Omaha Packing Company has been added. But no one thinks of adding the following rabid outsiders—all powerful concerns—to the alleged 'meat trust': Cudahy Packing Company (doing \$100,000,000 of business per year); Schwarzschild & Sulzberger Company (\$75,000,000 of

business per year); Kingan & Company (\$50,000,000 of business per year); Jacob Dold Packing Company (\$40,000,000 of business per year); T. M. Sinclair & Company, the Morrells, Plankinton Packing Company, Cudahy Brothers Company, Indianapolis Abattoir Company, Rohe & Bros., Joseph Stern & Son, Pittsburg Packing and Provision Company, Cleveland Provision and Packing Company, and scores of other plants which do from \$3,000,000 to \$6,000,000 of business per year.

"These independent plants have their own buyers in Chicago, Kansas City, Omaha and other great stock-yard centers buying slaughter stock for their plants. The smaller plants and the farmers kill 5,500,000 cattle yearly,

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while the above concerns and the other big fellows only kill 5,600,000 head of beeves annually, according to the Government's official report."

On this question Mr. Edward F. Swift says: "Although statistics might show that these large companies kill more than 50 per cent. of the stock coming to the large Western packing centers, there are a great many medium-sized markets, like Buffalo, Cleveland, Pittsburg, Indianapolis, etc., where the large companies slaughter no live stock, and in a great many of the medium-sized and small-sized towns in the United States there are local slaughterers who each do some slaughtering of cattle. These taken in the aggregate, I think, would amount to more than 50 per cent. of the entire slaughtering of the United States. Again, even if these large packers were acting in harmony, they would not be able to control prices to any considerable extent, for the reason that there are a sufficient number of other individuals, companies, or corporations in the business, who would increase the volume of their business the minute abnormal profits appeared. Therefore they would gradually take away the business from the larger packers, should the latter attempt to buy their cattle unreasonably low or sell their beef unreasonably high."

Proportion of Cattle Purchased in Leading Western Markets.

Of cattle raised primarily for beef, over three-fourths of the entire stock of the country is found in that section lying west of Chicago and east of the Rocky Mountains, whose natural market is in those cities where the Western packers have established their great plants. In this part of the country there is a surplus supply of cattle, in other parts of the country there is a demand for the beef produced from this surplus. It follows that since the great packers are the chief purchasers of cattle in these Western markets, they could by agreement exercise, subject to the limitations imposed by potential competition, an important influence over the prices received by raisers and feeders throughout this great ter-

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West Side Market }

JERSEY CITY

Wayne Street Market, Corner Wayne and Grove Streets
Ninth Street Market, 138 Ninth Street

Swift & Company New York

Central Office, Nos. 32-34 Tenth Avenue -

ritory. It becomes of special importance, therefore, to ascertain as exactly as possible the proportion of cattle purchased in these leading Western markets by the six companies. Fortunately, statistics in regard to the cattle market and the slaughtering at these points are much fuller and more satisfactory than for the rest of the country. The statistical information upon which the following discussion of the different markets is based will be found in the preceding table.

The Chicago Slaughter.

Armour & Company, Swift & Company, and Morris & Company all slaughter cattle on a

large scale at Chicago. The National Packing Company controls two cattle slaughtering establishments in that city—the Hammond and the Anglo-American. Of these, the Hammond plant does much the larger business. During the year 1903 the number of cattle passed at slaughter by the inspectors of the Bureau of Animal Industry in Chicago was 2,164,413. Of this total, the Armour, Swift, Morris, Schwarzschild & Sulzberger Company and National plants slaughtered 2,072,421, or 95.8 per cent., but, as shown below, their proportion of the total purchases of beef cattle on the Chicago market was considerably smaller.

Cudahy & Company do no slaughtering in Chicago. The inspections passed for the four companies, excluding the Schwarzschild & Sulzberger Company, were 1,808,182, or 83.5 per cent. of the total. Practically all the cattle slaughtered in Chicago are subject to government inspection, as is indicated by the fact that the difference between the receipts and shipments of cattle at the Union Stock Yards, which represents approximately local slaughtering, was almost the same, in 1903, as the number passed by the inspectors, amounting to 2,163,031 head.

(Continued on page 30.)

Swift & Company

Jersey City

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Lard Refiners and General Provision Dealers

For Export and Local Trade

Jersey City Office, 138-154 Ninth Street

New York Office, 342 Produce Exchange

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THE INDICTMENTS

The federal grand jury at Chicago has indicted the big packers, just as everybody who has followed the case expected it would. The National Provisioner predicted indictments when the jury convened, and at the same time stated its belief that the big packers were not guilty of wilful violation of any law. It was not believed then, and results have shown the accuracy of the prediction, that any number of individuals, acting as a grand jury, could resist the temptation to be known by name as the champions of "the oppressed people" against the "monster beef trust." The National Provisioner was of the opinion that the flimsiest testimony would be sufficient excuse for bringing the men who have made the packinghouse business the greatest industry in the United States to the bar of justice with the stigma of indictments hanging to them, in order that these grand jurymen might go down to fame as the fearless righters of a grievous wrong.

Another factor which entered into the prediction of indictments was the peculiar attitude of the prosecuting officials from the outset. Instead of being unbiased, deliberate investigators seeking to ascertain if the laws of the land had been violated, and to honestly prosecute or dismiss the charges, according to

actual evidence obtained, they boldly assumed that the big packers were guilty, and adopted tactics which have made "yellow justice" the handmaid of "yellow journalism." The two have succeeded in creating a deep prejudice against the big packers in the minds of the people, and it would almost seem that they have made a fair, impartial trial of the case improbable, if not impossible.

The latest step in the course of legal persecution is merely tentative, though of course important. The big packers are indicted, or formally charged with violation of certain statutes. A grand jury investigation consists in the collection of evidence against the accused, and no defense whatever is permitted; that is reserved for the trial. The latter procedure will not occur until the fall term of the court, and until that time, when the big packers will have opportunity to defend themselves against the testimony so laboriously and trickily gathered during the last few months, judgment by the public should in all fairness be reserved. The presumption of the law is that every man is to be considered innocent until he is proven guilty. Thus far every investigation or suit which has been brought to a definite conclusion against the big packers has produced results in their favor, and with this fact in mind a suspension of judgment pending the trial in the present case is all the more to be expected.

The National Provisioner has openly and fearlessly criticised the plague of persecutions which the big packers have had to endure during the last three years, simply and solely because it has regarded them as persecutions and not prosecutions. At the same time it has adversely criticised the methods which have made these persecutions possible. As the recognized authority of the entire packinghouse industry and its affiliations The National Provisioner analyzes the question without fear or favor and publishes its views for the clear and unprejudiced information of its readers. It has not believed and does not now believe that such men as J. Ogden Armour, L. F. Swift, Nelson Morris, Ferdinand Sulzberger, Edward Cudahy, Charles Armour, Arthur Meeker, T. J. Connors, Edward F. Swift, D. E. Hartwell and others of the packinghouse heads, would be guilty of any wilful violation of the law, either as individuals or through the corporations controlled by them. It further expresses the opinion that if any legal action at any time shows that they have been guilty of any technical offense, they will quickly and cheerfully issue such orders to their subordinates as will bring their business within the restrictions of such competent opinions as may be rendered by the courts. But it must also be remembered that these packers, as thoroughly equipped business men, must refuse to accept, for their guidance, the offhand and vicious opinions of the

"yellow" portion of the press, pettifogging politicians and self-seeking holders of public office.

To this The National Provisioner adds that if the big packers are found guilty of wilful violation of the law, after a fair trial, they should be punished without any regard whatsoever for their wealth, influence or social prestige.

When the case comes to trial it will present many unique problems to the courts for settlement; in fact, practically every feature of it will furnish legal precedents for the future guidance of very large corporations. It will be the first big case instituted in this form since the corporate form of business organization has reached the extent of interstate and international importance and its outcome will be of first importance, not only to the packinghouse business, but to practically every other American industry as well. For that reason, if no other, every effort should be made to bring about a fair and impartial trial.

Public clamor and social questions should not be allowed to affect the case in the slightest, and that results may be obtained which will give those engaged in all lines of trade a clear set of legal rules for their guidance. prosecuting officials, attorneys for the defense, judges and jurymen should weigh and decide strictly according to the law and the evidence.

In this connection it is to be hoped that every possible action, civil and criminal, will be thoroughly fought out now, so that the expensive and embarrassing persecution of an important part of the packinghouse business may cease, and the work of constructive development be continued without further harassment.

PRIVATE CAR FIGURES

The private car is not what is called a "cinch." It costs \$700 to build a cattle car, for instance. It earns less than \$100 per annum gross. From that must be deducted maintenance expenses. The lessee hauls, yards and otherwise assumes the costs and risks on the road. A company which owns 9,000 of these cars has a stock and bonded indebtedness of \$6,534,000. The cost of the cars was \$6,300,000. The company paid 7 per cent. dividends and carried but a small surplus forward. Another accounting shows that 2,586 cars earned \$26,000 per annum. That meant an average earning of less than \$11 per month per car.

It all indicates that the car owners do not make the enormous profits credited to them. The cost of operating these cars and of maintaining the lines affords the roads an estimate of the basis of cost to themselves. The shipper pays the combined toll, which may or may not be high.

TECHNICAL AND SCIENTIFIC

BUTTER AND OLEOMARGARINE.

When a solution of acetic acid in a fat is chilled, there is a separation into two layers, the upper of which may be regarded as fat + acid, and the lower as acid + fat. In the case of butter, the glycerides dissolved first are those with lower critical temperatures of solution, low melting points, and low refractive indices. In the case of other fats and oils, however, those portions with high refractive indices are the first to pass into solution.

On these facts the following analytical method is based: 5 grms. of the melted filtered butter-fat are mixed with 10 c. c. of acetic acid (sp. gr. 1.057) in a tube 16 m. m. in diameter and graduated, which is heated to 60 deg. C., with occasional agitation, in the water bath. The contents are then cooled to 40 deg. C., and the height of the upper layer measured. As soon as the temperature falls to 35 deg. C. the lower layer is decanted into a weighed flat dish, and evaporated at about 70 deg. C. until constant in weight. The portion left in the tube is mixed with a fresh 10 c. c. of acetic acid, and treated in the same way as the original fat, yielding an extract and a residue, which is also dried and weighed. The critical temperature of solution, Valenta test, and refractive index of each of the three fractions is then determined, and conclusions drawn from the ratio in which they stand to one another.

FINDING UNSAPONIFIABLE MATTER.

The usual methods for the determination of the unsaponifiable matter in oils and fats are all inaccurate. The following method is recommended: Five grms. of the oil or fat are boiled for at least one-half hour with 10 c. c. of a 20 per cent. alcoholic caustic potash solution under a reflux condenser and N_2 hydrochloric acid is then added until the liquid is nearly neutral. The liquid soap while still warm is transferred to a separating funnel, the flask being rinsed several times with 35 c. c. of warm water; 15 c. c. of glycerin of sp. gr. 1.26, are added, and the whole well shaken and extracted with 50 c. c. of ether. The aqueous layer is separated and again extracted with ether.

The combined extracts are evaporated to a small bulk and the residue treated with 1 drop of phenol phthalein and a few drops of a 3 per cent. alcoholic caustic potash, and a few grms. of finely broken glass added. The remainder of the ether is then distilled off, the residue dried at 95 to 100 degrees C. for two to two and a half hours, and then treated with 40 to 50 c. c. of anhydrous ether or light petroleum spirit. After 12 hours the solution is filtered, the residue washed several times with ether, the filtrate and washings are evaporated very slowly and the residue is dried for one and a half to two and a half hours at 100 degrees C.

A NEW FORM OF PYROMETER.

A telescope, the field of view of which is subdivided by means of two very fine wires, one of iron, the other of "constantan," an alloy of copper and nickel, receives the radiations of the source of heat towards which it is directed. The point of intersection of the threads of the reticule, which constitutes one of the junctions of the thermo-electric couple thus formed, becomes heated, and the current which is set up deflects the needle of a dial galvanometer, which may be made registering. The known laws of radiation show that if the objective be composed of slightly absorbent material, such as rock-salt or a fluoride, the deviation obtained is proportional to the absolute temperature (ordinary temperature + 273 deg. C.) of the heated body.

In the case of industrial pyrometers, the objectives of which are of glass, graduations are made by comparison with a standard pyrometer provided with a fluoride objective.

MANUFACTURE OF FISH GUANO.

The fish and fish refuse accumulating along the coast of England from the fish packing establishments is being manufactured into commercial fertilizers in the following manner. The material is first reduced to a semi-fluid consistency by boiling and diluting with water. The mixture, while still hot, with or without the addition of chemicals, is decanted to remove the more liquid portion, the liquid and more solid portions being then independently subjected to centrifugal action in machines of the non-perforated drum type. The liquid albuminoid portion obtained is subsequently subjected to further heating or treatment by chemicals, and again passed through the centrifugal machine to separate the fish oil. The solids are dried to form the commercial fertilizer.

NEW PATENTS.

792,899—Centrifugal machine. Herbert J. Hurt, Toronto, Canada. A centrifugal machine comprising a vertically-journalled rotary vessel for containing the material to be treated, said vessel having openings through its wall at its junction with the lowest portion of the bottom of the vessel for the passage of the material from the vessel.

792,926—Filter. Lewis Quimby, Youngstown, Ohio. An oil filter, comprising a strainer chamber, a strainer in said chamber, a washer chamber located below the strainer chamber, the strainer chamber having an outlet into the washer chamber, a tube projecting downward through the strainer chamber in immediate proximity to the outlet thereof, a needle valve extending through the tube and commanding the outlet from the strainer chamber, a heater chamber juxtaposed to the washer chamber, means for conducting the oil from the upper part of the washer chamber to the lower part of the heater chamber, means for heating the heater chamber, a settle chamber juxtaposed to the heater chamber, and means for conducting oil from the heater chamber to the lower portion of the settle chamber.

VENTILATION AND HEATING.

The requirements of good ventilation and heating being understood, the choice of the best method for carrying out such requirements presents itself. While the principles have been generally understood, their application has proved to be the stumbling block over which many an architect and engineer has tripped. Natural agencies, as apparently the least expensive, have usually been called upon to produce such currents and move such volumes of air as might be required. But it will be universally admitted that all systems of so-called "natural ventilation" have proved themselves inadequate to fulfill all requirements.

A dependence upon windows and doors for ventilation cannot, with propriety, be called a system of ventilation, for the supply is ordinarily spasmodic, and, without question, disagreeable, except in so far as a cold draught of fresh air from an open window may be preferable to the vitiated and odorous air of a confined apartment. Excellent results may continue for a number of days during the employment of a method of ventilation dependent upon natural agencies, but a change in the temperature or humidity, or in the direction and force of the wind, may exactly reverse the action of the system. Flues which are designed to furnish fresh air will be found to be actionless, while foul-air ducts may be bringing the foul air from other rooms. For a crowded or continuously occupied apartment such arrangements are utterly inadequate and are certain to prove entirely unequal to the task of supplying air in such quantity as has been shown to be required—above all, they are not positive.

Somewhat more positive results may be obtained by warming the air within the vent flues. Gas jets, steam heated surfaces and the smoke flues from steam and hot-air furnaces, are employed for this purpose. But as the results attained are due to a lessened density of the air within the flue, and as the heat applied for thus warming and rarifying this air serves no other useful purpose but is dissipated in the atmosphere, the method proves to be excessively expensive when the power, as measured in heat units, required to develop this movement is taken into account.

In this system of forced circulation by means of that universally-adopted machine—a fan or blower—the action is absolute and positive. The whole matter cannot be better expressed than in the words of the late Robert Briggs, a man of large experience in practical ventilation and heating. "It will not be attempted at this time to argue fully the advantages of the method of supplying air for ventilation by impulse through mechanical means—the superiority of forced ventilation as it is called. This mooted question will be found to have been discussed, argued and combatted on all sides in numerous publications, but the conclusion of it all is, that if air is wanted in any particular place, at any particular time, it must be put there, not allowed to go.

(Concluded next week.)

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FOR PURCHASING DEPARTMENTS

MOTOR DRIVEN REFRIGERATION.

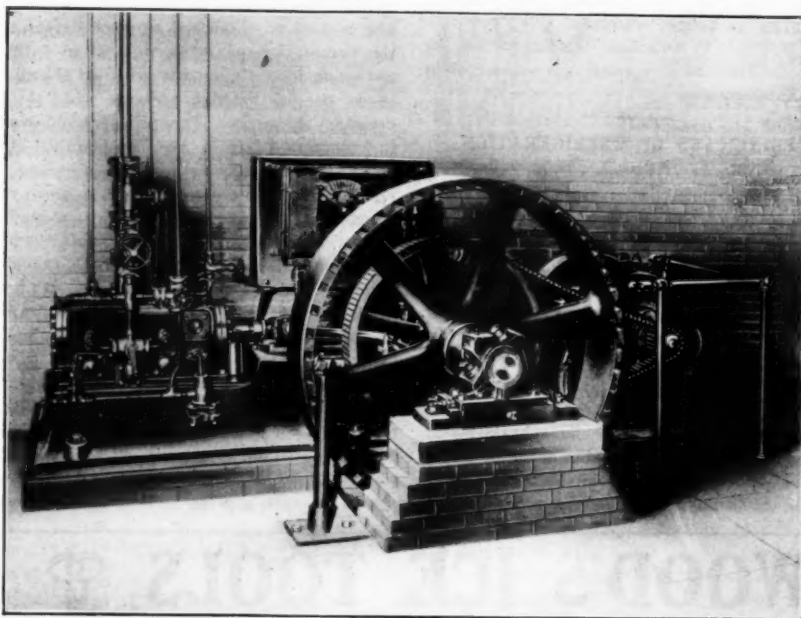
One of the new types of refrigerating machines built by the De La Vergne Machine Company, of New York, is illustrated in the accompanying cut. These machines have been produced to satisfy a call for small and medium-sized units employed in plants which draw their power from central electrical power companies' mains, and for use elsewhere where steam of other power is not available or convenient.

These machines are driven by Morse noiseless chain belting, which allows the motor to be set quite close to the machine, so that the whole unit becomes well adapted to use where floor space is limited. The water jackets, which are of the closed type, perform the

The peculiar relative arrangement of the valve chambers and cylinder makes it impossible for pieces of broken valves to get into the cylinder, if by any chance a valve should break. A further precaution against possibility of breaking is taken by making the suction valve housing split, which enables the suction valves to be made of one solid piece of metal, and without diminishing their cross section at any point. Both suction and discharge valves are made hollow so that their inertia is reduced to a minimum and the quickest possible opening and closing necessary for high efficiency is obtained. By utilizing the same port for suction and discharge the clearance is not only halved, but the extremes of cylinder temperature due to enter-

which they are now building in sizes up to 500 tons daily capacity.

Many of these machines are employed for cooling drinking water in large office buildings, where they become double economical in that, having to deal with practically a day load with little or no current used at night, special prices are often obtainable from the central stations furnishing the electrical power. One of the best known installations of this kind is that of the Butterick building, New York city, where cold water is supplied to over 1,800 people located in the eighteen different floors of the building. An economy test run on this plant shows the cost of electricity per ton of refrigeration to be 55 cents.



NEW TYPE OF DE LA VERGNE REFRIGERATING MACHINE.

function of cooling not only the cylinder walls, but also the oil which circulates through a lantern in the piston gland for lubricating the piston rod. The oil chamber within the water jacket is provided with a bull's eye so that the supply of oil can be observed at all times.

One of the characteristic features of this machine, for which the builders claim a great advantage in convenience and safety, is the arrangement of the valves. Both the suction and discharge valves are located in common valve chambers, which occupy the same relative position to the cylinder as those of Corliss valves. The valves, which are of the usual poppet type, are situated in this chamber with their seats toward the center, so that the cold gas entering the cylinder and the hot gas leaving same both pass through a common port in the bottom of the cylinder. From this description it is obvious that when the valve bonnets are removed the valves and springs in their housings can be drawn out of their chambers with practically the same facility that a Corliss valve is drawn out of its valve chamber. The discharge valve housings and seats are of exactly the same length and size as the suction valve housings and seats, and all are worked to a system of standards which makes them perfectly interchangeable.

ing cold and discharging hot gas are tempered, and the usual difficulties due to expansion and contraction are positively eliminated.

The location of the discharge as well as the suction valves being at the bottom of the cylinder, allows this type of compressor to discharge large quantities of liquid which may accidentally enter the cylinder, without the dangers incident to similar occurrences in other machines. The valve design of these small and medium-sized units is practically the same as that employed by the same company on their large type of horizontal machines

BOOMER & BOSCHERT PRESSES.

The Boomer & Boschert Press Company, Syracuse, N. Y., manufacturers of all sorts of presses, have issued an extensive and elaborate catalogue showing the various styles of knuckle-joint, power screw, hydraulic and special power presses which they manufacture. The book contains over 100 pages, with complete illustrations and descriptions of all their machinery.

Among the machines of special interest, of which complete specifications are given, with excellent illustrations, are their lard and tallow press, oleo and wax press, sheepskin press, automatic oil press, fish oil press, fertilizer press, heavy knuckle joint press, and their hydraulic and steam hydraulic pumps. They also list, illustrate and describe their line of accumulators, power attachments, indicators, parts, etc. The catalogue may be had upon application to the Boomer & Boschert Press Company, 329 West Water street, Syracuse, N. Y., or of the New York office, No. 209 Greenwich street.

MECHANICAL DRAFT APPARATUS.

Among recent orders taken by the B. F. Sturtevant Company of Boston, Mass., for mechanical draft apparatus, are the following: Dwight Mfg. Company, Chicopee, Mass., 1,830 h. p.; Pennsylvania Salts Mfg. Company, Greenwich Point, Pa., battery of boilers and stills; Nashua River Paper Company, East Pepperell, Mass., 1,500 h. p.; Paragon Park, Nantasket Beach, Mass., 620 h. p., and Haverhill Electric Company, Haverhill, Mass., 650 h. p.

**SEE THE LIST OF
BARGAINS
ON PAGE 48.**



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ICE AND REFRIGERATION

NEW INCORPORATIONS.

Bluford Creamery Association, of Bluford, Ill., has been chartered with \$5,000 capital by O. P. Nesmith, Thomas J. Devitt and J. H. Work.

Cando Creamery Company, of Cando, N. D., has been incorporated by J. L. Harvey, W. J. Loud and others, with \$4,000 capital.

Paoli Creamery Company, of Paoli, Ind., has been incorporated with \$6,000 capital by John T. Stout, A. B. Hain, et al.

Emporia Artificial Ice Company, of Lawton, Okla., and Emporia, Kan., has been organized with \$20,000 capital by Frank Broadwell, of Lawton; C. W. Rowland and George R. Broadwell, of Emporia.

Merchants' Union Ice Company, of New York City, has incorporated. The capital is \$100,000. Directors: H. L. Parnell, T. S. Dixon and F. M. Baxter, New York.

Capital Ice and Storage Company, of Denver, Colorado, has been incorporated with \$200,000 capital by George F. Miller, Joseph A. Flower, T. H. Arp and Marion Harper.

The Hudson Valley Brewers' Company, which was recently incorporated with a capital of \$500,000, has for its object the taking over of several Albany and Troy breweries. The directors for the first year are Gustave M. Fauser, New York; William Bracken, New York, and James E. Carhart, Albany.

ICE NOTES.

The Stanton Cold Storage Company, of Yardley, Wash., is rebuilding its plant.

John Thacher's ice houses at Attleboro, Mass., were burned on June 30. There were two houses containing about 2,000 tons of ice. The cause is unknown. Loss \$6,000.

Dr. T. W. French, of Great Barrington, Mass., will build a cold storage plant for farm products.

The firm of Brady & Young, of Galveston, Tex., has been organized with \$20,000 capital to deal in ice, coal and oil.

An ice factory will be built by local parties at Silver Creek, Miss.

R. B. Griggs will build an ice plant at Roanoke, Va.

The Morton-Greggson Packing Company has bought the cold storage plant at Nebraska City, Neb., which has been operated recently by C. W. Brunes & Co.

Jefferson Ice, Light and Power Company's plant at Jefferson, Tex., was destroyed June

5 by fire. Loss estimated at \$12,000 to \$15,000.

A. Booth & Company will build a cold storage plant at a cost of about \$12,000 at Lincoln, Neb., this summer.

Gus Nordstrom, of Rockford, Ill., is considering plans for building a cold storage warehouse.

Plans are being made for building another ice plant and cold storage warehouse at Cuero, Tex.

At a meeting of the directors of the Maglison Cooper Company, a concern engaged in the manufacture and installation of cold storage plants, which has its principal office at Watertown, N. Y., the following officers were elected: Madison Cooper, president and treasurer; William Cooper, vice-president; Charles A. Berger, secretary.

Capt. F. V. Dennison has contracted for the construction of a small cold storage plant at Natchez, Miss.

PRINCIPLES OF REFRIGERATION.

There are two systems of mechanical refrigeration which have survived the experimental stage, and which are now the only ones in practical use to-day. They are the absorption system and the compression system. With the absorption system, the use of ammonia is universal, but with the compression system, ammonia, sulphur dioxide, carbonic acid gas or compressed air can be used. By far the most compression systems use ammonia for the refrigerating medium because it has certain peculiar physical features which make it valuable and it involves the least expense in machinery and cost of running. Sulphur dioxide has certain prop-



erties which make it valuable as a refrigerating medium, but the cost of the gas itself has prohibited its extensive use. Carbonic gas is used on shipboard to some extent, as the size of the apparatus for a given output can be made small, but the principal objection to its use is the high pressure which it is necessary to carry. The principal objection to compressed air is the considerable size and space of the apparatus which is necessary for a given output. Generally, then, when refrigeration is spoken of, ammonia is assumed to be the refrigerating medium.

As ammonia is employed in both the absorption and compression systems, a few facts about it will prove interesting. Ammonia gas consists of the chemical combination of one part nitrogen and three parts hydrogen, and as such it is free from water, and is known as anhydrous ammonia. When mixed with water it does not combine with it, but the water absorbs it, which combination is known as aqua ammonia. At atmospheric pressure, a given volume of water will

WOOD'S ICE TOOLS

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contain no tar, oil or resin and are entirely without taste or odor. In cold storage and refrigeration they have long been the recognized standard for high-class construction.

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absorb about 800 times its own volume of ammonia, and will give it off freely when warmed. Just as water boils under different temperatures when subjected to different pressures, so does ammonia have a corresponding temperature of boiling and of liquefaction, at which temperature ammonia gas will liquefy if heat be abstracted from it, and ammonia liquid will become a gas if heat be added to it. The accompanying table shows the various temperatures and gauge pressure from - 40 to + 160 degrees at which ammonia changes from a liquid into a gas.

Critical temperature in degrees Fahrenheit.	Gauge pressure in pounds per square inch.
-40	-4.01
-30	-0.57
-20	3.75
-10	9.10
0	15.6
10	23.6
20	33.2
30	44.7
40	58.3
50	74.2
60	92.9
70	114.5
80	139.4
90	168.0
100	200.4
110	237.3
120	275.8
130	325.7
140	377.5
150	435.5
160	499.7

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Whether the absorption or compression system is used, the artificial abstraction of heat is the object of both and in principle it is exactly the reverse of the process upon which the steam engine works, for instead of transferring heat into work, work is transmitted into heat. Their operation is essentially the same in principle: condense the gas or vapor, deprive it of heat diminishing its volume, lower its temperature by doing work, and then expand it; during the last operation the heat is supplied by the articles to be cooled, which produces the refrigerating effect. The heat of the refrigerating room is carried out by the circulating water of the condenser. During the passage of the ammonia to the condenser, the generator or compressor raises its temperature and pressure and by removing the heat at the condenser the circulating

W. H. BOWER, GEORGE R. BOWER,
General Manager. Secretary and Treasurer.

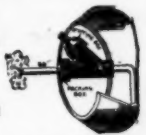
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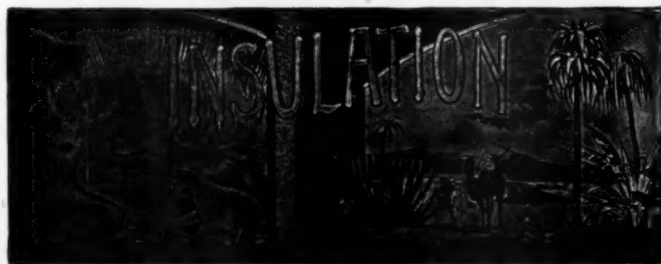


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Washington, 1227 Pennsylvania Ave., Littlefield, Alvord & Co.
Norfolk, The Nottingham & Wrenn Co.
Atlanta, Century Building, Southern Power Supply Co.
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ammonia is ready to take up the heat again as it passes through the refrigerating coils.

The absorption system depends upon the principle of absorption and expulsion of ammonia gas in water. This system involves the continual evaporation of the ammonia gas and comprises a generator which contains a concentrated solution of ammonia in water. This generator is heated either directly by a fire or by pipes leading from a steam boiler. The condenser is connected to the generator, and is cooled externally by a current of cold water. The ammonia coils are connected to the condenser and are supplied from it with liquid ammonia under a constant pressure which pressure is reduced as the ammonia passes into the cooler. The liquid and a small amount of vapor are now surrounded by the brine from which it absorbs heat, consequently reducing the temperature of the brine. During the process of cooling the brine, the liquid ammonia becomes a gas and passes to the absorber, which is filled with a water solution of ammonia. The water absorbs the gas and strong aqua ammonia is formed, which is pumped back to the generator, the ammonia again driven off and the operation is repeated.

In practice, the upper part of the absorber is connected to the lower part of the generator and the lower part of the absorber with the upper part of the boiler on which pipe line the pump is attached. This is done to get a constant circulation of the water so that it can be used over and over again. The upper part of the generator contains the more highly saturated ammonia solution while the bottom is nearly pure water, so that this is allowed to run back into absorber as the strong ammonia solution is pumped into the top part of the boiler.

The amount of cooling that is done is regulated by the flow of liquid, which varies the pressure and, consequently, the temperature of the cooler can be controlled. The process is similar to a compression system, the mechanical force for producing exhaustion being supplied by the absorption power of the water and the mechanical force required for compression is replaced by the heat of the generator which sets the gas free from the water. The only mechanically-operated feature of this system is the force pump used to pump the aqua ammonia from the absorber into the generator.

With the compression system the use of a mechanically-driven compressor is the base of the system, and it differs from the absorption system inasmuch as in that system the steps are chiefly chemical, but in the compression system they may be said to be mechanical, although the ammonia passes through exactly the same cycle, the steps of which are compression, condensation and expansion. In this system, the compressor compresses the ammonia to a pressure of about 150 pounds, and as it leaves the compressor it is in a gaseous state on account of the heat it contains. It then passes through the condenser, where it gives up its heat to the surrounding water, and in consequence the temperature is reduced below its critical temperature at that pressure and the ammonia becomes a liquid. It is then forced into the expansion coils where the refrigeration is produced. The liquid ammonia at a high pressure is allowed to expand in the coils at a low pressure with the result that the liquid

becomes a gas. In changing from a liquid to a gas, it must absorb heat from the surrounding objects in order to have given to it its latent heat of evaporation. The result is a temperature considerably below the temperature of the freezing point of water, and hence the required refrigeration is accomplished.

An advantage of the absorption system is that the bulk of the heat required for performing the work is applied direct without being transferred into mechanical power, but in actual tests the efficiency of each system is about the same when the compressor uses 3 pounds of coal per hour per indicated horse power, and if the compressor runs at a greater economy than this, then the compression system may be said to be more economical, but if it requires more coal per horse power per hour then it would probably be less economical.

There are two systems of refrigeration in use: the direct and the indirect. In the direct system the expansion coils are placed directly in the room or in direct contact with the medium to be cooled. It has the advantage of economy in operation, as no auxiliary devices are necessary, but it has the disadvantage in that the machinery must remain in constant operation in order to maintain constant refrigeration. This is overcome by the use of duplicate apparatus. Another objection to the direct system is due to the danger of leakage of ammonia in the refrigerating chamber through fittings, joints, etc., and many articles of merchandise would be rendered valueless if this happened, but where a leak or the odor would not be objectionable the direct system can be used to the best advantage.

There are two systems of indirect refrigeration. The most important is the use of brine, which is a saturated solution of either sodium, calcium or magnesium chloride, which remain liquid at a low temperature. It is by far the most useful means for applying the cold to various uses, its principal objection being the increased expense and loss of economy due to the operation of the system of brine pumps and refrigerating tank.

Air is another medium used for indirect refrigeration. In this system the cooling pipes are grouped in a room and large wooden conduits are used to convey the air to and from the rooms to be cooled. Fans are often used for this purpose, so as to keep the air in circulation. This system is in use where fresh air is desired and where perishable goods are in storage.

Ice manufacture is simply one branch of refrigeration and in cooling storage space, the rooms to be cooled merely take the place of

the freezing tanks in the manufacture of ice, and may be considered as a special application of the indirect system of refrigeration, although the direct system may be employed. In the brine system, the brine which is deprived of its heat is made to circulate in proximity to the water it is desired to freeze, and as the freezing point of the brine is below the freezing point of water, it permits the circulation of the brine at a much lower temperature.—The Practical Engineer.

THE WORLD'S WOOL MARKET.

The recent steady rise in the price of wool has attracted the attention of sheep breeders the world over to the present condition of the wool market. For thirty-five or forty years the price of wool had continually fallen, so that from 1895 to 1900 it had decreased 50 per cent. below that of 1870 to 1875. The fall in price was attributed principally to the extraordinary development of wool production in Australia, Cape of Good Hope, Argentina, and Uruguay. These countries produced about 197,000,000 pounds in 1870, 256,000,000 pounds in 1880, and 360,000,000 pounds in 1889. This rapid increase of production enormously augmented importation into industrial countries.

Some years ago there began a progressive decrease of the flocks in European nations. In thirty years there had been a decrease of 34,000,000 sheep in the flocks of England, France, Germany, Austria-Hungary, and Spain. The sheep in Australia decreased from 108,000,000 in 1870 to 74,000,000 in 1898. The importation of wool into Europe from Australia, Cape of Good Hope, Argentina and Uruguay amounted to 2,783,000 bales in 1895, 2,494,000 bales in 1901, 2,445,000 bales in 1902, 2,245,000 bales in 1903, and 2,045,000 bales in 1904. The price of wool has steadily risen since 1901, and in the case of "crossed" wool the price has increased 100 per cent. in the London market. This rise is of course due to the diminished production.

From 1840 to 1892 the number of sheep bred in Australia, Tasmania, and New Zealand increased with extraordinary rapidity; their number then began to shrink, and from 1898 to 1904 the decrease has been enormous. The Australian flocks decreased from 125,000,000 in 1892 to 111,000,000 in 1897, 103,000,000 in 1898, 92,000,000 in 1902, and 73,000,000 in 1903. The frequent droughts were the principal cause of this decrease of 50,000,000 sheep from 1892 to 1903. On account of this fact it is probable that the rise in the price of wool will continue.

Thirty years ago the countries named bred only Merino sheep of fine wool, but afterwards the growers crossed the breed with English sheep of long, coarse wool, until now the proportion of mixed wool exceeds 50 per cent. of the whole. Hence merino wool is scarcer than ever, and the caprice of fashion may increase the price far beyond what its quality merits.

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PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the bbl. except lard, which is quoted by the cwt. in tcs., pork and beef by the bbl. or tierce and hogs by the cwt.

Lower Markets Through the Full Stocks and the Liberal Packing—Fair Amount of Switching from July to September and Some Unloading—Slightly Increased Speculation—Active Consumption of Meats.

The hog products markets took a turn, in a moderate degree, to lower prices on the showing of Western and other stocks and the full receipts of hogs, more particularly in Wednesday's trading, but has since some feverishness, with slight reactions and irregularity, and rather more going on in the way of speculation in shifting deals from July to September, while October is taking, as well as the earlier months, some new interest in the way of speculation. Thursday's market was, as well, somewhat lower from the indicated features.

There is no question but that just now, at least, the stocks of the products are large enough to be the main factor against their market positions, and that the corn market situation, in its supplies and relatively full prices, are without material effect upon the hog products markets, except, perhaps, as the hog products prices are perhaps checked from an even easier tendency.

But there is a trade belief that the situation of the corn market must, ultimately, have an effect of a more decided order upon the hog products markets, whatever lapse in them may be a feature for the next few days, and that by the recent decline in prices better control is had of the products as well that the long interest had been somewhat shaken out.

The stocks of lard grew considerably through last month, and the visible supply of it makes a total more than 70,000 tierces greater than that of June 1, while it is about

88,000 tierces more than July 1, of last year.

Yet considering the much larger packing than that of the previous year it is shown that the consumption of the product has increased this season, while that the indications are that when the hog receipts fall off, as they are likely to do, in the near future, that there will be an opportunity to reduce considerably the, at present, liberal accumulated supply of the product.

The consumption of meats is especially liberal, while ribs and hams continue in best demand. It was more out of the way to have the speculative markets weaker for meats, for the week, than those for lard.

The world's visible supply of lard, by one statement of it, showed a total visible of 427,038 tierces, against 355,992 tierces June 1, and 339,133 tierces July 1, 1904, making an increase for June, of this year, 71,116 tierces, and for June, 1904, 64,011 tierces. The visible included 101,500 tierces held in Europe, and 70,000 tierces afloat for it—total 171,500 tierces, against June 1, respectively, 94,000 tierces, 55,000 tierces and a total of 149,000 tierces, and against July 1, 1904, 82,500 tierces and 60,000 tierces, respectively, and a total of 142,500 tierces.

The Chicago stock, in round figures, was 44,300 barrels pork, 162,700 tierces lard, and 20,048,000 pounds ribs, against June 1, 46,900 barrels pork, 140,900 tierces lard and 18,400,000 pounds ribs, and as against July 1, 1904, 49,500 barrels pork, 124,250 tierces lard, and 22,000,000 pounds ribs.

Any unloading of "long" stuff through the week at easier prices has made more effective holding through the closer concentration of supplies. Yet there are speculators who have little hope for permanently better market conditions through July, yet are quite

confident on their September deals, while that they have by their switching of contracts to the later months given most vitality to the speculative trading.

The outside interests are not especially interested in trading, and until the sentiment is aroused among the outsiders, and which could be provoked by a falling off of the hog supplies or some adverse corn crop news, the extent of speculative trading in the hog products is not likely to be of a materially increased order.

But the full degree of consumption of both meats and lard, the fact that current prices for them do not retard it, and the cost of hogs, and which latter is upon a very reasonable basis considering the prices of corn, while that the products, the list through, are too cheap with the cost of hogs, tends to give some hope of near future more stable market conditions for the hog products.

The consignments to Europe continue liberal, and where the meat supply is taken up quite freely, but where lard accumulates further, although that there is a good, general European consumption of the lard. But because of the liberal consignments to Europe the new demands thence upon our markets continue very light.

The home consumption is particularly large at the South and Southwest of meats.

The export movements last week included 14,160,483 pounds meats to the United Kingdom and 1,383,625 pounds to the Continent and a total week's shipment of the meats of 15,761,783 pounds, while since November 1 the shipments to Europe of the meats have been 448,859,134 pounds, against 412,880,432 pounds for the corresponding time in the previous season, or an increase this season of 35,978,202 pounds.

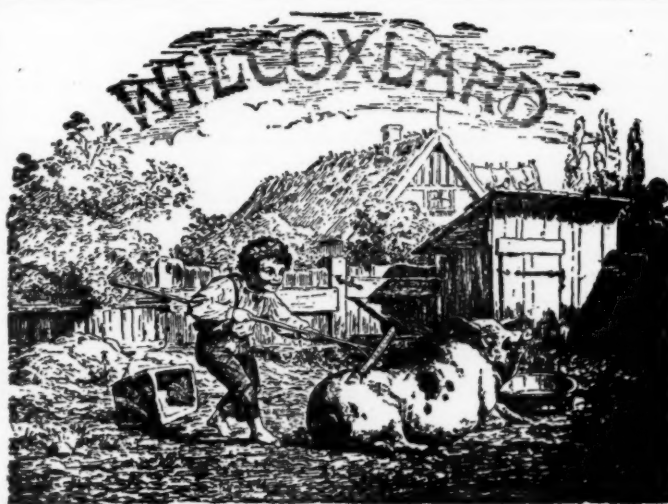
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TALLOW, STEARINE, GREASE and SOAP

WEEKLY REVIEW

TALLOW.—The foreign advices imply a firm tone to general market conditions there, although at the London sale on Wednesday the prices were as at the previous week's sale, with 1,500 casks offered, while one cable said 750 casks were sold and another 600 casks sold.

There is very little going out to England or the Continent from this country just now.

Indeed the demands thence are unimportant, while the shipments out of both our Eastern or Western markets are small, and even to England are in the closing up of a few contracts made some time since. The takings of the low grade tallow by Marseilles from the West, which was an incident of a few weeks since, are now stopped, temporarily at least.

The other demands upon our tallow markets, East and West, for supplies have shown for the week intensified dulness and because of the holidays.

There has been a little taking up of supplies by the soapmakers, but it has been in a conservative way and more as they have been urged upon the soapmakers to clean up shipments rather than carry them with the usual charges and risk of injured qualities in the warm weather over the holidays.

But on the whole the market has a steady tone; even if it does show a quiet condition of trading, and as to prices it stands on the same basis as the sales of the previous week.

The soap makers are adding to their accumulated stocks of the tallow, and most of them appear well supplied, more by taking the better grades of goods, the productions of which do not seem to be at all large, while the under qualities have more uncertain value.

All of the fine grades of the tallow seem to

be steadily well cleaned up, even though the demands are of a conservative order, and because the productions of them are hardly of normal volume, as the best grades of fat are still taken up as close as possible for other makes, and notwithstanding that the prices of oleo oil and the stearine had fallen latterly from some extreme figures.

The soap business is fairly good for the summer months, and there is the normal, for the season, use of the raw materials, but there is no quickness in buying them, and thus indifference among the soap makers is noted in cotton oil, greases, etc., as well as for tallow.

Unless there should be stimulation from the pure lard market, of which there is some trade hope before the close of this month, there appears nothing in sight for more than ordinary conditions of the tallow market for the near future.

The city hogshead tallow was last sold at 4½c., and as it was pretty well cleaned up in supply by the late sales, there is now no urging of it, and the market is steady at 4½c. Sales this week of 200 hogsheads city to a local soap maker at 4½c. The city, in tiers, of which there is little made, is quoted at 4½c.

The edible tallow in New York is offered in a very light way, and it is doubtful if city could be had under 5½c., while the out-of-town made has 5½c. bid.

The country made tallow does not accumulate materially in the supply, as there is sufficient trading with the soap makers to about use up the moderate receipts of it promptly, while the prices made for most of it, particularly if of prime quality, show decided regularity. Sales for the week of 325,000 lbs. country made at 4½@4½c. for good to prime and kettle lots 4½@5c.

OLEO STEARINE.—Aside from the interruption to business by the holidays there would have been little disposition to buy, and because of the protracted apart views of buyers and sellers as to prices. The supplies in New York or other Eastern markets would not be considered at all burdensome under ordinary conditions of demand, but with the present dulness they are bearing a little against prices. But at the West, where there is a very good supply held in first hands. The compound makers consider the asking prices too high and are

holding off for either more urgent needs of the stearine than they have at present or for some sign of a quickened compound lard trading, and which could be brought about only as the pure lard market might take a turn from its present slackness. New York quotes at 7¼c., and it has sold this week 350,000 lbs. city made at 7¼c. Chicago quotes at 7½c. asked.

LARD STEARINE.—Some choice city has been sold at 8½c. but bidding since has hardly exceeded 8c. The occasional Western lots on offer in New York could hardly be sold over 7½c.

COTTONSEED STEARINE.—The shipments are steady and there is no material accumulation of supply. Quoted at about 4½c. per pound.

GREASE.—The foreign markets are taking a fair quantity of low grade greases, more particularly of Western lots, which have been offered at relatively easy figures. The local pressers and soap makers are moderate buyers, and meet late quoted prices. Yellow quoted at 3½@3¾c.; bone at 3½@3¾c.; house at 3½@3¾c.; choice white at 4½c.; ordinary lots of "A" white at 4½@4¾c., and "B" white at 4½c.

GREASE STEARINE.—There is a moderate stock with a light business; therefore somewhat undecided prices. Yellow quoted at 4½c.; white at 4½c.

OLEO OIL.—New business in Rotterdam is of a very light order, where the market, although the supplies of choice oils are not large, favors buyers. Generally speaking, trading is rather lifeless. Rotterdam quoted at 53 florins. New York quotes: Choice, 9¼c.; medium, 7½c.; low grade, 6¼c.

PALM OIL.—The movement is in small lots, but with the light stocks the prices are held fairly regular and red is quoted at 5¼c. and Lagos at 5½c.

NEATSFOOT OIL.—The trading is in small lots without significant features to the market. Prime quoted at 49@50c.; 30 test at 88c.; 20 test at 94c.; and 40 test at 63c.

COCOANUT OIL.—The movement out of supplies to consumers is of a slow order, except as there is steady buying on Western account of parcels to arrive. Buyers have rather the advantage as to prices. Ceylon, spot, 6¼c. and shipments at 6c.; Cochin, spot, 7¼@7½c.; do., shipments, 7c.

LARD OIL.—There is a moderate movement in job lots, but no large sales either to export or home sources, and the market on the whole has a midsummer dulness. Sales at 56@58c. for small lots of prime.

CORN OIL.—There has been some export business from second hands, and the market being less burdened than latterly with supplies is now firm. Quoted at \$3.70@3.75 for car lots to \$4 for job lots.

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THE BEEF INDUSTRY.

(Continued from page 20.)

The local abattoirs which are officially inspected are those of the Standard Slaughtering Company, Pfaelzer, Pearse & Hess, L. Pfaelzer, Henry Guth, A. Stern & Company, David Levi & Company. These six companies killed a total of 91,992 inspected cattle in 1903. They slaughter solely for local consumption, and do not ship dressed beef. None of them slaughtered over 30,000 cattle, while the Armour, Swift and Morris plants each killed over 300,000 cattle in 1903. It is probable that the beef furnished by these six minor concerns does not exceed one-fourth of the consumption in Chicago.

Notwithstanding the large proportion of the cattle killings in Chicago which fall to the large packers, this city is considered by most cattlemen the best market for high-grade stock. The statistics in regard to the receipts and shipments of cattle afford a reason for this. The total receipts during the year were 3,432,486. As has already been noted, the local slaughter amounted to somewhat over 2,000,000. There was also an extensive demand for heavy, corn-fed cattle for shipment alive to the East, and for export. The report of the Chicago Union Stock Yards Company show that the leading shippers of this class of cattle bought 558,143 cattle in its yards during 1903. This number was equal to over 25 per cent. of the slaughtering by the six companies at that point. A considerable part of the shipped cattle were bought by the large packers. Beside this large demand for cattle which are known to have been bought for slaughter at other places, there were other buyers on the Chicago market who purchased about 700,000 cattle during the year 1903. It is probable that by far the larger part of these were sold to feeders, and need not be considered as of especial importance in relation to the proportion of beef cattle purchased by the large packers.

Kansas City Killing.

All of the six companies are represented in the packing houses at Kansas City, but the plant of Morris & Company only began operations in 1905. The number of cattle passed by the government inspectors in 1903 at the packing houses of the other five companies was 999,292. This was 99.6 per cent. of the total number passed at Kansas City, which amounted to 1,003,029. The proportion of the Armour, Swift and National companies was 66.6 per cent. The small abattoirs of Robert Cochran, W. McLaughlin and Edward Schick slaughter only for local consumption. The aggregate number of cattle passed by the federal inspectors at their plants was only 3,737 in 1903. There are also a few butchers at Kansas City whose killings are not subject to government inspections. The beef produced by them, together with that produced by the three small inspected abattoirs, is much less than the consumption of Kansas City itself. It is impossible to obtain precise statistics of the killings of these local butchers or of the total number of cattle slaughtered in Kansas City.

The annual report of the Kansas City Stock Yards Company gives the number of cattle driven from the yards for packers' and city use at 1,033,384. To this number must be added 4,149 cattle received at the Fowler yards, making a total of 1,037,533, or about

34,000 more than the number of carcasses passed by the inspectors. The officers of the Stock Yards Company have stated, however, that they often do not know whether these cattle are slaughtered locally or taken to the immediately surrounding country for feeding. It is quite possible, therefore, that a considerable part of the excess over the number of official inspections, in the number of cattle reported by the Stock Yards Company as locally used, may not have been slaughtered.

Kansas City is the most important center for the distribution of young cattle for stocking and feeding purposes. With respect to some of these cattle there is at times competition between the packers who desire them for slaughter and the cattle feeders. A considerable number of cattle are also bought at this point by others than the large packers for shipment East or for export, but this feature of the market is much less important than at Chicago.

South Omaha Slaughtering.

Armour & Company, Swift & Company, the National Packing Company and the Cudahy Packing Company have packing houses at South Omaha. In 1903 these four firms slaughtered 728,374 cattle, passed by the government inspectors. The Bureau of Animal Industry inspected no other cattle at this point. The Armour, Swift and National Packing companies slaughtered 514,795, or 70.7 per cent. of the total. The local concerns which slaughter at this point are unimportant, and do not supply even a large proportion of the local consumption. The annual report of the Omaha Union Stock Yards Company shows that 766,870 cattle were taken from the yards in 1903. This is 25,126 more than the

number taken by the four large packers, according to a report compiled by the Stock Yards Company and published in the Drovers Journal-Stockman. This report includes calves, which are not included in the reports of inspection of the Bureau of Animal Industry, and it is probable that a part of the excess represents animals driven to the country for feeding. Very little export or special order buying is done at Omaha.

At South St. Joseph.

Morris & Company and Swift & Company have abattoirs at South St. Joseph. The Hammond Packing Company formerly owned a plant in that city, which was burned in July, 1903, but which is being rebuilt. (This plant has been in operation since the Fall of 1904.—Ed.) In that year 398,042 cattle were passed at slaughter by the government inspectors. About 99 per cent. of these were slaughtered at the three plants already mentioned. The only other slaughtering establishment having federal inspection is that of August Freund. The difference between the receipts and shipments of cattle at the St. Joseph stock yards in 1903 was only about 6,000 in excess of the number passed by the government inspectors. There is comparatively little buying of beef cattle at St. Joseph for shipment East. It follows that the market is virtually in the hands of the packers mentioned.

(To be continued.)

Note.—The publication of the official report of Commissioner Garfield on his investigation of the beef industry began in the issue of The National Provisioner of March 25.

Need a good man? Keep an eye on page 48.

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WEEKLY REVIEW

THE NATIONAL PROVISIONER is an official organ of the Interstate Cottonseed Crushers' Association, and the official organ of the Oil Mill Superintendents' Association of the United States.

An Advance of More Than One Cent Per Gallon Followed the Government Cotton Crop Report—Especially Strength for and Desire to Buy the September Option—All of the Intermediate Months Followed in the Rising Tendency—Demands, Just at Present, Chiefly of a Speculative Order—No Improvement, as Yet, in Export Demands—Some Reaction to Easier Prices After the Excited Trading.

The government cotton crop report which exercised an excited influence upon the market for the staple itself in Monday's trading did not get to work upon the cottonseed oil market until Wednesday, as concerns the New York trading, and which is most to be considered, at least at this time of the year. The closing of the New York Exchange on Monday and Tuesday over the holidays accounted for the lapse of time for the cotton crop report's influence on the cotton oil market.

After opening on Wednesday about one-half cent higher there was soon a further advance of $\frac{1}{4}$ @ $\frac{1}{2}$ c., and the market for the September option, of which the buying was almost exclusively and mainly on out-of-town speculative account. Later in the day there was a good deal of strength with a further rise in prices of $\frac{1}{4}$ c. But on Thursday there was the natural reaction from the excitement of the day before and a decline of about $\frac{1}{2}$ c., with considerable buying of September at the decline.

There was nothing very material in bringing about the advanced prices outside of the cotton crop report, and the disposition to buy on speculative account, as the export demand continued lifeless and the home consuming sources remained quiet as concerns buying interest. Nevertheless it must be considered that the statistical position steadily becomes more in favor of sellers, as there continues deliveries on contracts to exporters, however quiet new

demands are from them; besides that the home consumption from held stocks of the manufacturing interests is of a fairly full order.

There is a good deal of confidence in the future of the cottonseed oil market, however quiet, just now, both the export and home consuming demands are for new or further investment, and whatever reactions to easier prices from bulges may happen in the near future.

Nothing very definite for the season concerning a cotton crop could be had, of course, in the month of June. But that there is reason for some alarm concerning the cotton crop, and that it can be fairly figured upon that the cotton crop in no contingency of weather conditions through the next two months, could come within 2,500,000 bales of the large yield of the last year goes without saying. The point would be now as to whether it is possible to make a 11,500,000-bale cotton crop, and the season will have to be materially further advanced before this can be absolutely determined. It now looks as if a cotton crop of 11,500,000 bales would be extremely doubtful. The fact that all sorts of "statistical information" is going about concerning the cotton crop from cotton trade sources should be taken, as it is probably taken by the "long heads" of the trade more in the way of possibilities under continued adverse weather conditions, and that revisions will be in order in relation to it as the next few weeks' weather reports come to hand. Nevertheless, following the government cotton crop report, there was additional poor weather news for the crop in heavy rains in some sections, and which then further stimulated the cotton market, as was noticeable particularly in Thursday's trading in the cotton market, and which, of course, was in addition to the government crop influence.

The July weather conditions particularly could materially improve the prospects of a cotton crop or further modify them. Never-

theless there is a feeling that as exceptional weather conditions would be needed in July to give a possibility of a cotton crop of say 11,500,000 bales, that the probabilities are that that amount will not be reached and that indeed the outcome may be of a very short cotton crop, depending upon such news as may come along concerning it through July and August, while that, if the cotton crop remains as late a one as it at present, that weather conditions in relation to it in the fall months would have to be counted upon as of most significance.

While the monthly government report of the condition of the cotton crop has been called in question, we are inclined to think that it was only slightly under the condition of the crop up to the time that it was made up, and that it was substantially correct to the time of its collection, while that it very closely approached a most excellent other authority. The cotton crop, however, we think, had shown some improvement since the date of the government report, and particularly in the Southeast growing sections, although that, at this writing (Thursday) the weather conditions in some sections are again against the crop.

The fact, however, remains that the production of cottonseed oil has to depend upon the extent of next season's cotton crop, and in that respect it is unlike the cotton supply, which, however the yield of it the coming season, will have a pretty considerable held back supply of the cotton to depend upon, and that there would be enough cotton on sale in any at present contingency of the coming cotton crop, however, by relation, more restricted the cotton seed supplies.

We hold to the opinion, frequently expressed in these columns, and as from deductions of needs for consumption in this country and in Europe, that the cottonseed oil supply to be carried over into a new season is likely to be less than that carried over in the previous

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year, and that if a short cotton crop should this season be made, of which there is a possibility from the poor weather conditions and diminished acreage planted, that there would be an especially limited supply of the current oil holdings by the time the new crop oil producing season is reached.

A new record of high prices for the cotton oil was made by the advance of this week, but improved prices for the oil was not at all surprising, as there was every probability of their being made from influences that we have before outlined in this review, before September, and that they are only at an earlier period helped by the late cotton crop news.

Whatever easy prices now prevail for linseed in Europe, it must be considered that they are the outcome of temporary large supplies of the seed arriving at the United Kingdom markets, and from some considerable accumulation there of the oil, but that the general statistical position of the linseed favors stronger markets for it before the new crop season for general soap oils is reached.

Therefore, that however quiet the export demands for cotton oil in this country are just now, and as well that they have been for several weeks, because most European markets are temporarily well filled up with the cotton oil, yet that there is likely to be a marked addition to the requirements of the cotton oil from this country before a new crop season for it is reached, and notwithstanding some sources abroad now say that "they will not want any more of the oil before the fall months."

There is a belief that some directions in Europe will be buying the cotton oil before the close of this month, and probably some sources that had latterly concluded to take profits on some of their contracts, but who, as well, felt that cotton crop influences could throw the oil market against them, but which they were willing to chance against.

It is a pretty full record of exports of the cotton oil to date since last September, as it reaches practically 900,000 barrels, and it is making a pretty big hole in the figures of the production, particularly as the home consumption is a larger one than that of the previous year. And if there is to be an awakened export interest before the new crop season, and perhaps at an early date, in the cotton oil, the statistical position of it would, of course, in the degree of it, be beneficial to market situations for the cotton oil.

The deliveries of the cottonseed oil in New York upon the July contracts have up to this writing been quite moderate, and perhaps not exceeding 3,000 to 4,000 bbls., yet that this amount, in "going around," has satisfied several other contracts. It does not look probable that the July contract deliveries will be at all burdensome; indeed they are likely to be very moderate, considering the improved market prices for the oil, while that if the cotton crop news continues of a bullish order through this month that there is likely to be a very limited amount of the oil to be had on the July contracts, whereby the August market position should be helped.

New York Transactions.

At the close of last week (Saturday's trading) the market was very quiet, with steadiness shown as to prices. The prices then for prime yellow were for July at 28½¢@28¾¢;

August at 29¼¢@29½¢; September at 29¼¢@30¢; October at 30¢@30½¢.

Monday and Tuesday, holidays.

On Wednesday there was large activity, over 11,000 bbls. bought for September at climbing prices, with the demand at first largely from some out-of-town sources, particularly by one trader at the West, who has for some time been a factor in the business, but before the day closed some other big buyers participated in the demand. There were a few dealings as well in the July delivery, but the months outside of July and September simply went up in price in sympathy with the other sales, and were quiet. There were sold 300 bbls. prime yellow July delivery at 29½¢. and 1,400 bbls. do. at 29¾¢, also 500 bbls. September at 30½¢; 1,800 bbls. do. at 30¾¢, and fully 8,700 bbls. do. at 31¢. Prices on the respective calls were: July, 29¢@29½¢. and 29½¢@29¾¢; August at 29¾¢@30¼¢. and 30¢@30½¢; September at 30½¢@30¾¢. and 30¾¢@31¢; October at 30¾¢@31¼¢. and 31¢@31½¢.

On Thursday the market opened ¼¢. lower on July and September, and was fairly well sustained, or just a trifle easier on September and October, but all months soon settled to at least ¼¢. under the previous night's closing figures at a materially small reaction, and by the close the inside prices of the day prevailed. Prices on the "calls": July at 29¼¢@29½¢, and 29¢@29½¢; August at 29¾¢@30¼¢; September at 30¾¢@31¢, and 30½¢@31¢; October at 31¢@31½¢. and 31¢@31½¢. Sales 3,100 bbls. September at 30¾¢, 2,000 bbls. do. at 30¾¢, 100 bbls. do. at 30½¢, 200 bbls. do. July at 29¾¢, 1,000 bbls. do. at 29½¢, 500 bbls. October 31¼¢, 1,000 bbls. do. at 31¢.

(Friday's report of sales and prices on page 42.)

Export Demands.

There is no more cottonseed oil being resold, notwithstanding the advanced prices for it, and it would appear that the foreign markets need the oil that they have under contract for delivery to them. But there is no new demand for the oil, and as concerns fresh export interest it remains lifeless. The belief is that the foreign markets will have to take a good deal more of the oil before the new crop season, and it is based upon the opinion, that however some weakness latterly in the prices of some other soap oils in Europe, that their statistical position must after awhile tell more in favor of the selling interests. There has been, for instance, several cargoes of linseed in at United Kingdom ports that has temporarily over supplied the markets there, yet that the visible supply of the linseed is so materially shorter than that of last year that the market position for the product must ultimately be influenced. And it is well known that some other soap oils of Europe are in materially less supply than that of the previous year. It is conceded that the holdings of cotton oil in Europe just now are sufficiently large to prevent further demands thence, for awhile, to be of a quiet order.

Compound Makers' Demands.

There is no buying interest at present, and the compound makers can be quiet as concerns their demands for a few weeks more, but there should be further material buying from them before a new crop season. The bleaching grade in Chicago is nominally 26¢. in tanks.

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At the Mills.

The markets are now uninteresting at the mills, with about 22c. quoted for crude in tanks for the limited amounts to be had.

The Lard Position.

The lard market sunk at midweek under the showing of full stocks, as a considerable gain had been made in them through June, as more particularly mentioned in our provision market review. But there is reason for the opinion that after the shaking out of the "longs" and the better control of the product, that in a little while, more particularly at the time when the hog supplies at the packing points fall off, as they are likely to some time this month, that the corn market position, in its statistical features and prices will have significance in an effort to boost the lard market.

The fact that there is a large stock of lard in sight means nothing to the disadvantage to the market, as the European consumption of it is liberal. Indeed the larger the stock of the lard the greater the probability of ultimately higher prices for it, and the method of reasoning concerning this is too well understood for elaboration.

COTTONSEED OIL SITUATION.

(Special Letter to The National Provisioner from Aspegren & Co.)

New York, July 6.—In our last circular we pointed out the fact that the market had grown considerably stronger in its position on account of repurchases by refiners, especially of July oil. We also remarked that there would be a surprise in store for the trade in regard to the July deliveries. Developments during the past week have proven that we were correct. A paltry 4,000 barrels of July oil have so far been tendered which almost looks like a mockery in face of the talk that there would be some 25,000 to 40,000 barrels of oil dumped into this market the first week in July. No sooner did the trade realize the facts in regard to same than buying orders started pouring in. The advance in cotton and the poor showing of the government cotton crop report naturally gave all the impetus needed to induce speculators to take hold of the article, and the last few days we have scored an advance of 1@1½c.

Considerable oil has been sold on this advance. We estimate that some 40,000 barrels of July to October oil have been taken during the past week. Considerable more oil will naturally come out in case of a further advance, and everything depends upon how much of a buying power there is in the speculative element that is now taking hold of contracts. Steady buying will naturally advance prices, and the advance so far has not been very extensive, which makes traders expect a further rise unless too large blocks of oil should be dumped on the market here. The foreign situation is very disappointing, and the European buyers have dropped out of it entirely.

With the advance in old crop positions more interest is shown in new crop crude oil. Considerable disposition is shown in some quarters to sell crude oil for October, November, December at around 25c., but whether this disposition will remain should oil advance further is hard to tell.

Produce Exchange prices at 3 o'clock today were as follows: Prime summer yellow cottonseed oil, July, 29c. sales; August, 29½c. bid and 30c. asked; September, 30½c. sales; October, 31c. sales. We further quote: Prime winter yellow cottonseed oil, 32c.; prime summer white cottonseed oil, 32c.; Hull quotation of cottonseed oil, 18s. Prime crude oil in tanks in the Southeast, October, November, December, 24c.

SOUTHERN MARKETS

Memphis.

(Special Wire to The National Provisioner.)

Memphis, Tenn., July 6, 1905.—Cottonseed oil dull; prime crude, 22½c. Prime meal scarce at \$22. Hulls dull at \$3.25 loose.

Atlanta.

(Special Wire to The National Provisioner.)

Atlanta, Ga., July 6.—No crude oil is offering: 23½c. bid for the new crop. Meal strong at \$21, f. o. b. mill. Hulls weak at \$4.50.

New Orleans.

(Special Wire to The National Provisioner.)

New Orleans, La., July 7.—Crude oil is exhausted; refined is active and advancing; prime summer yellow, 26c. loose at New Orleans; off summer yellow, 25c. Cake steady, \$27.75. Meal firm, \$28 long ton, ship's side, New Orleans. Stocks are light; some sales of new crop cake at \$26.50 long ton, sacked, ship's side, October or November shipment.

CABLE MARKETS

Marseilles.

(By Cable to The National Provisioner.)

Marseilles, July 6.—Cottonseed oil market is firmer, on account of advance in America, but buyers shy and quotations away below American parity. Quote prime summer yellow at 45 francs and winter at 48 francs.

Hamburg.

(By Cable to The National Provisioner.)

Hamburg, July 6.—Cottonseed oil market is steady and quiet. Sales of off oil, 37 marks; prime summer yellow at 38 marks, and butter oil at 40 marks. Sales of good brands off oil at 36½ marks; prime summer yellow at 37½ marks. Butter oil is neglected at 39½ marks.

Trieste.

(By Cable to The National Provisioner.)

Trieste, July 6.—Cottonseed oil market is weak. Demand slow. Quote prime summer yellow at 47 francs and winter oil 49 francs.

Rotterdam.

(By Cable to The National Provisioner.)

Rotterdam, July 6.—Cottonseed oil market is steady. Prime summer yellow, nominal, 23 florins; butter oil, 24@25 florins, according to quality; small sales off oil at 22 florins.

Liverpool.

(By Cable to The National Provisioner.)

Liverpool, July 6.—Cottonseed oil market is easy. Quote prime summer yellow 18s. 3d. and off oil at 18s.

COTTONSEED OIL EXPORTS

Exports of cottonseed oil for the week ending July 6, 1905, and for the period since September 1, 1904, were as follows:

From New York.

Port.	For Week.	Since Sept. 1.
Bbls.	Bbls.	Bbls.
Aalesund, Norway.....	—	50
Aberdeen, Scotland.....	—	130
Acapulco, Salvador.....	—	25
Adelaide, Australia.....	—	292
Alexandria, Egypt.....	—	3,771
Algiers, Algeria.....	—	4,708
Algoa Bay, Cape Colony.....	—	146
Ancona, Italy.....	75	850
Antigua, West Indies.....	—	76
Antwerp, Belgium.....	—	3,376
Auckland, New Zealand.....	—	96
Asua, West Indies.....	—	6
Barbadoes, West Indies.....	801	1,813
Bathurst, Africa.....	—	9
Belfast, Ireland.....	—	50
Belize, Br. Honduras.....	—	4
Bergen, Norway.....	—	428
Bone, Algeria.....	—	455
Bordeaux, France.....	—	5,062
Braila, Roumania.....	—	25
Bremen, Germany.....	50	314
Bridgetown, West Indies.....	—	509
Bristol, England.....	—	10
Buenos Ayres, Argentine Republic.....	71	2,538
Calbarien, Cuba.....	—	22
Cairo, Egypt.....	—	90
Cape Town, Cape Colony.....	—	631
Cardenas, Cuba.....	—	5
Cardiff, Wales.....	—	10
Cartagena, Colombia.....	—	4
Cayenne, French Guiana.....	—	307
Christiansand, Norway.....	—	1,616
Cienfuegos, Cuba.....	—	106
Ciudad Bolivar, Venezuela.....	—	108
Colon, Panama.....	—	20
Conakry, Africa.....	—	512
Copenhagen, Denmark.....	111	3,296
Corinto, Nicaragua.....	—	186
Curacao, Leeward Islands.....	—	30
Dantzig, Germany.....	250	4,800
Delagoa Bay, East Africa.....	—	21
Demerara, British Guiana.....	—	1,115
Drontheim, Norway.....	—	80
Dublin, Ireland.....	—	76
Dundee, Scotland.....	—	41
Dunedin, New Zealand.....	—	25
Dunkirk, France.....	—	600
East London, Cape Colony.....	—	125
Fiume, Austria.....	—	2,000
Fort de France, West Indies.....	94	1,964
Fremantle, Australia.....	—	58
Frontera.....	—	10
Galatz, Roumania.....	—	2,181
Genoa, Italy.....	—	31,784
Georgetown, British Guiana.....	127	806
Gibraltar, Spain.....	—	870
Glasgow, Scotland.....	—	7,290
Gothenberg, Sweden.....	—	3,111
Guadeloupe, West Indies.....	—	1,565

Guantanamo, Cuba	—	31
Guayaquil, Ecuador	—	45
Halifax, Nova Scotia	—	9
Hamburg, Germany	—	3,056
Havana, Cuba	51	1,961
Havre, France	940	28,588
Hong Kong, China	—	108
Hull, England	—	325
Jamaica, West Indies	—	113
Kingston, West Indies	48	2,708
Konigsberg, Germany	—	1,700
Kotonu, Africa	—	10
La Guaira, Venezuela	—	564
La Libertad, Salvador	—	9
Leghorn, Italy	—	12,961
Leith, Scotland	—	50
Liverpool, England	—	9,811
London, England	—	2,749
Lorenzo Marques, East Africa	—	9
Macoris, Santo Domingo	—	1,842
Malmo, Norway	—	215
Malta, Island of	50	1,063
Manchester, England	—	660
Manoas, Brazil	—	30
Maracaibo, Venezuela	—	2
Marseilles, France	—	107,728
Martinique, West Indies	—	2,268
Massowah, Eritrea	—	158
Matanzas, West Indies	—	64
Mauritius, Island	—	9
Melbourne, Australia	33	417
Montego Bay, West Indies	—	58
Montevideo, Uruguay	164	4,838
Nagasaki, Japan	—	12
Naples, Italy	400	5,127
Newcastle, England	—	255
Oran, Algeria	—	4,210
Panama, Panama	—	107
Para, Brazil	—	27
Pernambuco, Brazil	—	47
Phillipville, Algeria	—	503
Pointe a Pitre, West Indies	—	225
Port Antonio, Jamaica	—	94
Port au Prince, West Indies	—	56
Port Limon, Costa Rica	5	58
Port Natal, Cape Colony	—	170
Porto Cabello, Venezuela	—	7
Port of Spain, West Indies	—	105
Port Said, Egypt	—	731
Progreso, Mexico	—	143
Puerto Plata, Santo Domingo	—	611
Rio Grande do Sul, Brazil	—	4
Rio Janeiro, Brazil	—	7,332
Rotterdam, Holland	300	9,077
St. Croix, West Indies	—	40
St. John, N. B.	—	24
St. Johns, West Indies	—	232
St. Kitts, West Indies	—	1,026
St. Martins, West Indies	—	244
St. Thomas, West Indies	—	37
Sanchez, Santo Domingo	—	90
San Domingo City, Santo Domingo	—	585
Santiago, Cuba	—	149
Santos, Brazil	—	1,994
Savannah, Colombia	—	6
Shanghai, China	—	19
Sierra Leone, Africa	—	10
Singapore, India	—	148
Southampton, England	—	1,400
Stavanger, Norway	—	700
Stettin, Germany	—	6,875
Stockholm, Sweden	—	650
Sydney, Australia	—	792
Tampico, Mexico	—	8
Tangier, Morocco	—	750
Trieste, Austria	—	31,750
Trinidad, Island	—	924
Tunis, Algeria	—	116
Valetta, Maltese Island	—	1,908
Valparaiso, Chili	48	2,117
Varna, Bulgaria	—	75
Velle, Denmark	—	200
Venice, Italy	—	38,297
Vera Cruz, Mexico	—	132
Wellington, New Zealand	—	70
Yokohama, Japan	—	28

Totals 3,618 393,421

From New Orleans.

Antwerp, Belgium	2,100	16,260
Belfast, Ireland	—	725
Bremen, Germany	—	4,763
Copenhagen, Denmark	—	2,830
Cuba	—	108
Genoa, Italy	—	2,551
Glasgow, Scotland	900	5,518
Hamburg, Germany	890	23,597
Havana, Cuba	—	1,377
Havre, France	—	3,000
Hull, England	—	600
Liverpool, England	150	15,050
London, England	—	8,880
Manchester, England	—	650
Marseilles, France	—	31,020
Porto Rico, West Indies	—	65
Rotterdam, Holland	—	117,396
Stettin, Germany	—	50
Trieste, Austria	—	37,459
Venice, Italy	—	2,810

Totals 4,040 274,880

From Galveston.

Antwerp, Belgium	—	8,955
Hamburg, Germany	—	3,496
Liverpool, England	—	2,980
Marseilles, France	—	5,956
Rotterdam, Holland	500	80,499
Tampico, Mexico	—	3,203
Trieste, Austria	—	11,853
Vera Cruz, Mexico	—	10,246

Totals 500 127,248

From Baltimore.

Antwerp, Belgium	—	1,650
Belfast, Ireland	—	100
Bremen, Germany	—	540
Bremerhaven, Germany	—	260
Copenhagen, Denmark	—	805
Hamburg, Germany	—	1,735
Havre, France	—	200
Leith, Scotland	—	50
Rotterdam, Holland	—	4,338
Stettin, Germany	—	630

Totals 10,208

From Philadelphia.

Antwerp, Belgium	—	104
Coin Island	—	1
Glasgow, Scotland	—	350
Rotterdam, Holland	—	9,250

Totals 9,705

From Savannah.

Hamburg, Germany	1,479	5,804
Rotterdam, Holland	376	22,671
Stettin, Germany	—	900
Trieste, Austria	—	200

Totals 1,855 29,575

From Newport News.

Hamburg, Germany	950	13,616
Liverpool, England	—	1,400
London, England	—	145
Rotterdam, Holland	—	10,555

Totals 950 25,716

From All Other Ports.

Canada	—	14,721
Cuba	—	138
Liverpool, England	—	21
Mexico	—	9
Newfoundland	—	1
South America	—	112

Totals 15,002

From Pensacola.

Genoa, Italy	—	771
Liverpool, England	—	416
Marseilles, France	—	4,284
Mitazzo	—	204
Venice, Italy	—	102

Totals 5,777

Recapitulation.

From New York	3,618	393,421
From New Orleans	4,040	274,880
From Galveston	500	127,248
From Savannah	1,855	29,575
From Newport News	950	25,716
From Baltimore	—	10,208
From Philadelphia	—	9,705
From Pensacola	—	5,777
From all other ports	—	15,002

Grand totals, all ports 10,963 891,541

COTTON OIL MILL IN WEST INDIES.

In view of the progress made in connection with the sea island cotton industry in the West Indies, it is proposed to erect a small plant at Barbadoes for the purpose of expressing and refining the oil to be obtained from the seed. This enterprise is receiving the support of the British Cotton Growing Association, and it is probable that the first cotton oil factory to be established in the British West Indies will be ready to be begin operations during the early part of next year. It is estimated that the weight of cotton seed produced during the current season will probably amount to 3,724,138 pounds, or 1,063 tons. The yield of crude oil amounts to about 45 gallons per ton of seed, so that if all the seed were dealt with at an oil factory the total output in crude oil would be 74,835 gallons.

THE BRITISH LEATHER TRADE.

Complaint is made by the British leather trade of the injurious effect thereon of the American drawback system. It is pointed out that under this system American tanners may import raw hides, finish them, and then, claiming a return of 99 per cent. of the duty paid, export the hides to Great Britain to compete with British tanners. It is also pointed out that the drawback system enables the American tanner to deliver leather to British buyers at a lower price than the British tanner can profitably sell it. British tanners are therefore directly interested in the proposed free admission of raw hides into the United States, as it is believed that the immediate result of removing the duty would be to make the export of leather from the United States less profitable than the domestic sale.

The British tanning trade has been very dull for several years, and some large firms have had great difficulty in keeping out of bankruptcy. The depression has been aggravated by the large and increasing imports of shoe leather from the United States, the value of which was nearly \$17,000,000 in 1904, an increase of \$500,000 over 1903. However, so far in 1905 the condition of the trade is more cheerful for the British tanner, according to United States Consul Mahin of Nottingham. The imports from the United States show a substantial decline in comparison with the corresponding period of 1904, and the British exports of leather have increased about 30 per cent. in comparison with 1903 and 1904.

Need a good man? Keep an eye on page 48.

JULIAN FIELD

Broker in Cottonseed Products
and Fertilizing Materials

ATLANTA, GA.

JULIUS DAVIDSON

Broker and Commission Merchant
PACKING HOUSE PRODUCTS
COTTONSEED OIL

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32 N. Front Street Memphis, Tenn.Lombard Iron Works & Supply Company
AUGUSTA, GA.Builders and Dealers in ENGINES, BOILERS,
Tanks, Stacks, Standpipes, etc.; Bridge and
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SUPPLIES and TOOLS; Foundry, Machine,
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COTTON OIL & FIBRE CO.

Producers of

Crude and Refined Cotton Seed Oil, Cotton Seed Cake,
Hulls, Mixed Hulls, Linters, Etc. Prime Cotton Seed Meal "Cofco" Brand.

Samples free on request Net 100 lbs. fully decorticated.

GUARANTEED ANALYSIS:
Ammonia, not less than 8 per cent. Nitrogen, not less than 7 per cent. Protein, not less than 43 per cent. Crude Oil and Fat, not less than 9 to 10 per cent.Land Title Bldg.:
Philadelphia, Pa.

HIDES AND SKINS

(Daily Hide and Leather Market.)

Chicago.

PACKER HIDES.—The market has broadened out considerably with increased firmness developed all around and light hides particularly strong. A further advance has occurred in native cows. Native steers are strong. A prominent packer has sold 2,000 April native steers at 13½c., which price is ¼c. more than these hides were freely offered at a while ago and could not be sold. A leading packer has sold two cars of July native steers from St. Louis at 14c. to a local dealer who was the same buyer of a large packer's July native steers at this price as previously noted. The two cars sold above contained a large percentage of lights, which fact makes them especially attractive to a dealer with the market in its present position. Old February and March native steers are now held at 13¼c. and about all the May and June salting have been sold. The rumored sale of all of one large packer's spread native steers for the year of 1905 is not confirmed and this packer is offering his old spreads up to June 1st, at 14c., and his new spreads from June 1st to January 1st at 16c. Texas hides continue active with more demand for the heavy weights. Beside the six cars of heavy Texas reported yesterday there were ten more cars of these sold by two large packers at 14½c. These heavy Texas were of May and June salting and were all taken by one buyer. Late salting butt brands and Colorados are steady at 13c. and a prominent packer has sold two cars of May Colorados at 13c. Branded cows are unchanged at 12¾c. Native cows are again stronger. A leading packer has sold a car of July heavy native cows at 13¼c., being an advance of ¼c. A sale has also been made of 3,000 light native cows at 13c. Native and branded bulls are unchanged.

COUNTRY HIDES.—Cow hides continue to strengthen and holders are confidently looking for a further advance in buffs. Dealers are particularly firm on account of the strong packer market. Two cars of Chicago buffs have been sold partly ahead at 12c. and later it was reported that a car of buffs had been sold at over 12c., possibly 12¼c., but full confirmation regarding this transaction is lacking. Nelson Morris & Co. sold a car of their Indianapolis buffs at 12c. It is reported that wagers have been made here that buff

hides will go to 14c. per pound before the close of the year. Heavy cows are firmly held at 12c., although no sales are reported at this figure. The market on extremes is decidedly strong at 12c. and a bid at that price for a lot of short haired all No. 1 extremes has been declined. Heavy steers continue to lag behind cows and are nominally quotable as per last sales of ordinary lots at 11¾c., though it is doubtful if any could be obtained to-day under 12c. and better lots are held at ½c. more. Bulls are steady with sales of small lots of light average hides at 9½@8½c. on selection.

CALFSKINS.—A car of Chicago city skins has been sold at a shade under 14½c. and although the full asking price was not realized better than 14¼c. was obtained which was all that buyers were bidding heretofore. Choice outside cities are firm at 14¼c. and ordinary country skins are selling at 13¾c. with some held at 14c. Bids of 12c. have been declined for a short hair selection of present receipt kip, although a regular run of kips is obtainable at 11¾c. Strictly real kips are held at 12½c. and deacons rule at 97½ and 77½c. for cities and 95 and 75c. for countries.

SHEEPSKINS.—The market continues firm at 80c. for this week's take-off of packer shearlings and \$1.05 to \$1.10 for present take-off packer spring lambs. Business in the country market is still restricted owing to limited offerings, but prices rule firm at 40 to 65c. for shearlings and 50 to 75c. for country spring lambs.

New York.

DRY HIDES.—Last arrivals of Puerto Cabellos, La Guayras, etc., amounting to 5,000 hides have been sold at the unchanged price of 21½c. A cargo of 35,000 Buenos Ayres has arrived all imported to one tanner. There is not much demand here River Plate hides, but prices at the source of supply keep firm owing to the demand from Europe.

CITY SLAUGHTER HIDES.—It is reported that one local packer has sold his July native steers ahead, but details as to price, etc., are as yet lacking. Some packers here are now asking 12½c. for July, all weight cut throat cows ahead. A local buyer reports having secured a car of June cows from an outside butcher at 11½c.

New York Country Hides and Skins.

GREEN SALTED COUNTRY BUTCHERS' HIDES AND SKINS.—Hides are somewhat firmer, and we increase quotations. There are no accumulations, as buyers are as anxious for hides as butchers are to sell. Quotations: No. 1 Native Steers, 60 lbs. up, 10½@11½c.; No. 2 Native Steers, 60 lbs. up, 9½@10½c.; No. 1 Native Steers, under 60 lbs., cows and heifers, all weights, 10@10½c.; No. 2 Native Steers, under 60 lbs., cows and heifers, all weights, 9@9½c.; No. 1 Native Bulls, 7½@8c.; No. 2 Native Bulls, 6½@7c.; branded hides are accepted as No. 2 in respective selections.

CARROLL S. PAGE, HYDE PARK, VT.

Green Calfskins, Country Hides, Sheep
Felts, Tallow, Bones.

Wool Puller and
Tallow
Renderer

Manufacturer of
Page's Perfected
Poultry Food

CALFSKINS, TRIMMED.—The market is firm; prices nominal, with no accumulations. Quotations: 5 to 7 lbs., 95c.@\$1.00; 7 to 9 lbs., \$1.15@1.20; 9 to 12 lbs., \$1.45@1.50; kips, 12 lbs. up, \$1.60@1.75; deacons, 70@80c., 15c. less per piece on No. 2 and 20c. less on No. 2 kips.

CALFSKINS, UNTRIMMED.—Quotations: No. 1, 7 to 15 lbs., 12@12½c.; No. 1, 15 lbs. up, 9@10c.; No. 2, 1½c. less per lb.

Leather.

New England shoe manufacturers have looked good sized spring contracts and have secured further advances of 2½ to 5c. per pair on satin, grain and split goods. An advance of 2½c. was secured last week on satin shoes and this week a further 2½c. increase has been obtained. Most shoe jobbers have given up the fight and are going with the market and have advanced prices 5 to 10c. per pair to retailers. Sales of No. 2 light union backs have been made in Boston at 34c. for good stock. Large accumulations of middle weight scoured backs and heavy weights except in extra heavy plump firsts is the only bad feature of the sole leather situation and a large sole cutter states that oak is sure to keep dull as long as tanners make union so near like it and sell the latter at 2 to 3c. less. There is a good trade at present in colored glazed kid, but Russia calf keeps dull.

MANIPULATIONS OF LEATHER.

Leather is becoming more and more of a puzzle to retailers. Substitution of leathers is now so deftly practiced that undoubtedly many a buyer is completely fooled. The tricks of the tanners are innumerable, and as these are marked behind the practises of the shoe manufacturer, the shoe retailer has a tough proposition to ascertain whether or not he is getting real or imitation goods.

Cowhides and sheepskins are among the cheapest of hides and skins in the market, but by a few clever manipulations tanners make them valuable. A cowhide is tanned. Then it is put through a splitting machine, which machine is so delicately adjustable that it will shave off leather as fine as tissue paper.

For the tanner's practical purposes it splits leather into any weight desired; a fine kid for a woman's shoe, a heavier calf weight for boy's and men's shoes, or even heavier stock for working men's shoes. The light weight split is given a vici kid finish, the medium a velour calf, while the heaviest weight may be grained. Other splits may be chrome-tanned and given a patent finish, and may be sold as patent colt. A sheep leather, especially cabretta stock, is made into imitation of kid, and large quantities of it are sold as such. Sheep leather is even given a patent finish and sold as colt and kid.

Country Butchers

Before Disposing of HIDES
and SKINS would do well
to Write for Prices to

U. S. Leather Co.

Country Hide Department,
E. J. SCHWARZ, Manager

Newark Branch,
Cor. Cross and Spring Sts.,
NEWARK, N. J.

Cleveland Branch,
Cor. James and Merwin Sts.,
CLEVELAND, OHIO.

Cumberland Branch,
CUMBERLAND, MD.

HIDES UP!

after being salted with RETSOF CRUSHED ROCK SALT will bring more money on account of receiving a thorough, honest cure. No lime in RETSOF; just the pure Salt supplied by Nature. We merely crush and screen to meet the requirements. The fact that RETSOF spreads evenly—being dry—causes the hide to be cured uniformly; the Salt can be used several times, thus making it the most economical we know of. That we are never too old to learn is exemplified by the following: A hide man who had used evaporated Salt for many years was induced recently to put down a pack of 25 hides with RETSOF and a pack of same number with evaporated; when taken up the pack salted with RETSOF had increased in weight 34 lbs. more than the other pack.

If you are skeptical give RETSOF a similar trial, that is all we ask.

Address

INTERNATIONAL SALT CO.

SCRANTON, PENNA., or CHICAGO, ILLS.



CHICAGO SECTION



Edward F. Swift will put up a residence on the shore of Lake Geneva.

Swift & Company's sales of fresh beef in Chicago for the week ending July 1 averaged 6.41 cents per pound.

The N. K. Fairbank Company will build a large refinery and office building at Wentworth avenue and Twentieth street. It will be four stories and cover 200x124 feet.

Only 237,300 cattle were received in the Chicago market last month, being the smallest June total since 1901, about 30,000 smaller than a year ago, and 66,000 smaller than June, 1903.

The second loss on the Schwarzschild & Sulzberger plant at Kansas City, Kan., has been settled at a little less than 10 per cent. on the general form insurance of nearly \$1,300,000, which is a considerable salvage from the original estimates. The total adjusted loss was \$104,824.

George W. Hunt, for many years with Armour & Company in a responsible position, and latterly in general commissions, has joined Geo. M. Stern & Son and will manage the provision and fertilizer department. Mr. Hunt is well known in, and very popular with, the trade, which wishes him every success in his new undertaking.

General Manager Skinner's special train of show stock that will be assembled at St. Paul early in September for a trip to the Portland Exposition, will make the journey west over the lines of the Northern Pacific and return via the Union Pacific, stopping off at several points on each line for special exhibitions at which the residents of various sections may see an aggregation of some of the best pure-bred cattle, horses, hogs and sheep that this country affords.

Alvin H. Sanders, vice-president and chairman of the executive committee of the International Live Stock Exposition, has been chosen chairman of the committee to arrange for a national reciprocity convention in Chicago about Aug. 15. Mr. Sanders has been editor and manager of the Breeder's Gazette since 1885. He was born in Keokuk, Iowa, in 1860, was reared on a farm and was educated at Cornell University.

John H. Palm, for many years superintendent of Morris & Company's hoghouse,

and latterly in the same capacity for the G. H. Hammond Company, is now operating the "White Front Market," No. 5612 South Halsted street, and handles nothing but the best of fresh and cured meats, lard, sausage, etc. Mr. Palm is well known in packing circles and credited with being one of the best packing-house men in the country and a first-rate man in every other respect.

Wm. E. Kidson, the energetic manager of the Anglo-American Provision Company's retail business for a number of years, leaves this week for a visit to his father, Mr. Thos. Kidson, of Willenhall, England, one of the oldest provision merchants in the British Isles. Mr. Kidson is exceedingly popular in the trade and among his fellow employees, who, to show their esteem, presented him with a handsome gold watch two years ago. Aside from being an



WM. E. KIDSON.

expert packinghouse and market man, Mr. Kidson enjoys the reputation of being one of the foremost in, coffee, cheese and butter judges in Chicago, and is also a writer and lecturer of no mean ability, as well as the author of numerous pithy and witty short sentence advertisements, which he posts in his markets as they occur to him. Mr. Kidson has the wishes of his numerous friends for a pleasant trip and a safe return.

In the annual report of the trade and commerce of Chicago Secretary George F. Stone

of the Board of Trade presents an interesting collection of data showing not only the business transacted in this market, but also presenting in comprehensive and accurate form the extent of the chief grain crops of the United States, the proportion of those crops marketed and the rates of transportation paid in their distribution both at home and abroad. The report also shows the official record of exports of products of agriculture, the value of which is shown to constitute 60 per cent. of the total value of our exports of domestic merchandise.

"The value of our agricultural resources and their intimate and vital relation to every industry in the land cannot be exaggerated," writes Mr. Stone. "The volume and value of the chief grain crops of the West fix rates of interest, determine to a large extent rates of transportation and the volume of interstate commerce, measure the extent of credits given by merchants and bankers and place a proper value on all kinds of collaterals; in fact, directly and indirectly the crops of the Mississippi Valley affect every financial interest from one end of the land to the other."

The useful and conspicuous position the Chicago Board of Trade occupies in the maintenance of such relationship is commented upon as follows: "Chicago is the great central market, the grain clearing house of the world, and behind the multiplicity of her grain transactions are not only domestic crops but the grain crops of the entire world—in the field, in the warehouse and in transit. Here is collected all information concerning crops and their movement; on the bulletins of this exchange is posted the price of wheat, maize, oats and provisions in every considerable market throughout the world, and this information with absolutely no restriction is sent broadcast for the benefit of producer and consumer alike, without prejudice and without partiality. No other department of business is conducted so openly, so absolutely above board and so directly with reference to the common welfare. No department of business is so free from restraint of trade."

NATIONAL LIVESTOCK EXCHANGES.

The date for the annual meeting of representatives of the various live stock exchanges of the country as the National Livestock Exchange has again been changed. The convention will occur at Buffalo, N. Y., July 21, 22 and 23.

Pick up equipment cheap. Watch page 48.

Vaporised Fuller's Earth

Sulphur which injures Oils has been
Extracted by New Process
Bolted 100 Mesh, Uniform, Economical
Refiners invited to correspond with

HY. NEWSON GARRETT, C. E.
Sydney Place, Bath, England

SEE THE LIST OF
BARGAINS
ON PAGE 48

HENRY DUMMERT

218 La Salle Street
CHICAGO

Broker and Commission Merchant
in TALLOW, GREASE and COTTONSEED OIL.
HIGHEST REFERENCES.

CRANE COMPANY'S CELEBRATION.

The Crane Company, of Chicago, of which the founder, Richard Teller Crane, remains the active head, celebrated its semi-centennial this week, beginning Monday and continuing until Thursday, when sixteen trainloads of the company's employees and their families united in an outing at Northwestern Park. This monster industrial family gathering was attended by 17,000 men, women and children. The company's principal agents, with their families, arrived in Chicago from all sections of the country and many from foreign lands, for the Crane interests are in all quarters of the globe. Monday evening there is to be a dinner at Washington Park Club and later a visit to White City. Tuesday all visitors and officials of the company went to the country house of Mr. Crane at Lake Geneva, Wis., where there was a celebration.

The growth of the Crane Company from a small one-room brass works to its present proportions is practically the story of Mr. Crane's life since he started at the ladder's foot. Mr. Crane was born in Paterson, N. J., May 15, 1832; went to work as a mill hand when he was 9 years old and came to Chicago in 1855, when he was permitted by his uncle, the late Martin Ryerson, to build a little shop in a corner of the Ryerson lumber yard in Canal street. That shop, with one lathe, was completed fifty years ago to-day.

Thenceforward the business grew rapidly until 1865, when incorporation papers were taken out by Richard T. Crane, Charles R. Crane, Martin Ryerson, Eliphalet W. Blatchford and Charles N. Holden under the name of the Northwestern Manufacturing Company. In 1872 the name was changed to the Crane Bros. Manufacturing Company, which was changed to the Crane Company in 1890.

The first branch of the Crane Company was established in 1886 at Omaha, and one year later a branch was opened in Los Angeles. The success of these ventures led the Crane Company to lead the invasion of the east by western houses and establish a branch in Philadelphia in 1890. Other branches have been established as follows: San Francisco,



"ABC"

SYNONYMOUS
WITH

**STRENGTH
DURABILITY
EFFICIENCY**

IN

Ventilating Fans

FANS AND BLOWERS

For All Purposes

American Blower Company

DETROIT

NEW YORK CHICAGO LONDON

1891; Minneapolis, 1892; St. Paul, 1893; New York, 1894; Portland, Ore., 1894; Duluth, 1894; Sioux City, 1897; Oakland, Cal., 1898; Cincinnati, 1899; St. Louis, 1899; Salt Lake City, 1902; Seattle, 1902; Watertown, S. D., 1903; Chanute, Kan., 1903; Independence, Kan., 1904; Spokane, 1904; Fargo, 1904; Baltimore, 1904; Memphis, 1904; Dallas, 1904; Birmingham, 1905. The Crane Company has a large foreign business and a sales office in London.

BEEF VALUES CLOSELY STUDIED.

That thousands of cattle raisers and feeders who are wise in the method of producing beef cattle on the farm have but a meager understanding of the standard of values by which cattle are bought at the big markets of this country may be pretty safely assumed, says the Drovers Journal. It must be understood that cattle buyers on the big markets work under a system that enables their employers at all times to determine the skill or lack of skill with which they are performing their duties. To this end complete records of the slaughtering results of every load of cattle bought, and, in fact, of every animal, if bought singly, are kept. With the cost of each load or animal attached it is very easy to detect which buyer is doing the most valuable work for the packer or butcher.

These percentage sheets are carefully prepared by expert accountants and placed in the hands of the buyer as quickly as they can be turned out after the cattle he has bought have been slaughtered. In this way he is constantly being educated in his work, and it is, to use an expression common in the trade, "a dead cinch" that the buyer who is a dull scholar in studying these killing sheets will not long hold his place in the great class of buyers at the yards. Every buyer must progress in his work to a high standard and keep on keen edge in his work or he will not long enjoy a position as buyer for any big packer.

With the successful packer it must be an unvarying rule to stop all leaks pretty soon after they are found. These percentage sheets

contain condensed information from which the buyer is able to refresh his memory regarding the relative value of the various loads of cattle he bought the day before. The live cost and the dead cost of the beef is there before him and the dead cost of the beef is the item in which he is most interested, as that is the test of his skill as a buyer. The percentage of beef, the pounds of hide, fat and offal are shown, and to the trained eye of the buyer it takes but a glance for him to ascertain which loads of cattle were dear or cheap on the market in his buying that is there shown.

Many a shipper of cattle who has seen choice fat 1,500-pound steers quoted up to \$6.00 has been disappointed when his load of big coarse steers of that weight that was really of a low and shrinky class in beef making had to sell down at \$7.75. The buyer immediately recognizes this low quality in cattle offered and the country buyer should also school himself to become an expert in quality and beef making percentage. If so, his profits would be greater and surer.

**THE
PROFITS
of the
PACKINGHOUSE
are in the
BY-PRODUCTS**

and their economical handling

**DO YOU KNOW HOW
TO GET THEM OUT?**

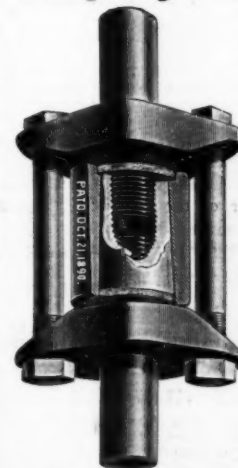
You can get valuable
pointers by consulting
the experts of the

**STILLWELL-PROVISIONER
LABORATORY**

36 Gold St.
NEW YORK

Branch: Floor A
Produce Exchange

**THE
Climax Ammonia
Coupling :: :: ::**



Has been in use over 13 years and has never given any trouble. Each COUPLING is carefully tested to 300 pounds pressure and is warranted to make a permanently tight joint for AMMONIA. It is not affected by expansion or contraction.

The Western Cold Storage Co. of Chicago have over 6,000 in use and during seven years not one leaky joint has been discovered.

The Davies Warehouse and Supply Co., :: :: AGENTS.
20-32 North Clark Street, CHICAGO

CHICAGO LIVE STOCK

RECEIPTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, June 26.....	14,823	1,116	30,770	13,624
Tuesday, June 27.....	7,310	4,061	13,060	10,222
Wednesday, June 28.....	17,277	1,990	33,672	10,800
Thursday, June 29.....	10,440	1,800	32,732	11,981
Friday, June 30.....	4,101	782	28,303	9,318
Saturday, July 1.....	288	168	14,839	1,252

Total last week.....	54,244	9,965	153,382	57,207
Previous week.....	49,323	8,778	153,405	61,718
Cor. week 1904.....	53,449	7,125	122,304	62,910
Cor. week 1903.....	62,230	7,125	110,194	50,058

SHIPMENTS.

	Cattle.	Calves.	Hogs.	Sheep.
Monday, June 26.....	4,352	15	8,650	303
Tuesday, June 27.....	2,320	101	3,813	970
Wednesday, June 28.....	5,307	66	7,894	335
Thursday, June 29.....	4,416	126	6,125	682
Friday, June 30.....	3,626	240	4,488	461
Saturday, July 1.....	768	—	6,023	—

Total last week.....	20,780	548	38,959	2,821
Previous week.....	10,736	221	32,517	7,902
Cor. week 1904.....	21,233	147	21,333	11,415
Cor. week 1903.....	22,763	184	20,496	6,195

Combined receipts of hogs at eleven markets for week ending July 1.....	528,000
Year ago.....	551,000
Two years ago.....	411,000
Two years ago.....	308,000

Total receipts for year to date, 12,464,000, against 11,777,000 year ago, 10,711,000 two years ago.

Receipts at six points (Chicago, Kansas City, Omaha, St. Louis, St. Joseph, Sioux City) as follows:

	Cattle.	Hogs.	Sheep.
Week ending July 1, 1905.....	134,300	391,500	132,900
Year ago.....	133,400	406,300	123,300
Two years ago.....	122,000	259,200	115,700
Two years ago.....	151,500	295,300	105,500

Receipts of year in Chicago to date, with comparisons:

	Cattle.	Hogs.	Sheep.	Cars.
1905.....	1,570,997	4,186,370	1,983,048	148,669
1904.....	1,573,883	4,064,188	2,090,290	146,203

Receipts for month of June:

	Cattle.	Calves.	Hogs.	Sheep.
1905.....	230,440	42,427	625,377	284,701
1904.....	207,081	32,010	577,138	332,442

Shipments for month of June:

	Cattle.	Calves.	Hogs.	Sheep.
1905.....	98,506	1,280	145,772	30,846
1904.....	96,755	842	105,838	31,043

CHICAGO HOG SLAUGHTER.

Chicago packers slaughtered hogs during week ending July 1 as follows:

Armour & Co.....	25,500
Anglo-American.....	13,100
Continental.....	3,100
Swift & Co.....	17,200
Hammond & Co.....	5,100
Morris & Co.....	6,700
Hoyd-Lanham & Co.....	7,300
St. & S.....	15,800
H. Moore & Co.....	4,500
Roberts & Onke.....	4,200
Other packers.....	5,600
Omaha Packing Co.....	14,000

Total.....124,100

Left over.....4,000

Week ago.....129,100

Year ago.....112,200

Two years ago.....139,500

AVERAGE PRICE OF HOGS.

Week ending July 1, 1905.....	\$5.48
Previous week.....	5.31
Year ago.....	5.30
Two years ago.....	5.77
Three years ago.....	7.60

Estimated receipts of live stock week ending July 8th:

Cattle.....	55,000
Hogs.....	135,000
Sheep.....	60,000

AVERAGE PRICE OF GOOD BEEF CATTLE.

Week ending July 1.....	\$5.10
Previous week.....	4.93
Year ago.....	5.53
Two years ago.....	5.09

CATTLE.

Choice to prime steers.....	\$5.40@6.00
Common to good steers.....	4.25@5.15
Inferior to common steers.....	3.60@4.25
Good to fancy cows and heifers.....	3.50@4.40
Fair to choice feeders.....	4.00@4.40
Fair to choice stockers.....	3.00@4.00
Good cutting to fair beef cows.....	2.00@2.80
Common to good culling cows.....	1.40@2.00
Bulls, poor to choice.....	2.75@4.00
Calves, common to fair.....	3.00@3.25
Calves, good to choice.....	3.50@6.25

HOGS.

Good to choice shipping.....	\$5.40 @5.50
Good to choice butcher weights.....	5.40 @5.52 1/2
Good to choice heavy mixed.....	5.32 1/2 @5.42 1/2
Heavy packing.....	5.30 @5.40
Light mixed.....	5.35 @5.45
Good to choice 185@250 lb. weights.....	5.40 @5.52 1/2
Choice to prime heavy.....	5.40 @5.55
Poor to choice pigs.....	4.50 @5.40

SHEEP.

Export wethers.....	\$4.85@5.25
Fair to prime wethers.....	4.95@5.50
Fair to fancy ewes.....	4.50@5.25
Yearlings, fair to fancy.....	5.35@6.35
Culls, ewes, poor to fair.....	3.00@4.00
Bucks and stags.....	2.50@3.00

Native lambs, medium to prime, shorn.... 5.25@6.75
Native lambs, culls and fair class, shorn.... 4.25@5.25
Western lambs, shorn..... 5.25@6.85
Spring lambs..... 5.00@5.50

CHICAGO PROVISION MARKET

Range of Prices.

SATURDAY, JULY 1, 1905.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
July.....	7.27	7.27	7.27	7.27
September.....	7.47	7.47	7.45	7.45
RIBS—(Boxed 25c. more than loose)—				
July.....	7.70	7.75	7.70	7.75
September.....	7.95	7.97	7.95	7.97
PORK—(Per barrel)—				
July.....	12.67	12.72	12.65	12.72
September.....	12.97	13.00	12.97	13.00

MONDAY, JULY 3, 1905—HOLIDAY.

TUESDAY, JULY 4, 1905—HOLIDAY.

WEDNESDAY, JULY 5, 1905.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
July.....	7.22	7.22	7.15	7.15
September.....	7.45	7.45	7.32	7.32
RIBS—(Boxed 25c. more than loose)—				
July.....	7.70	7.75	7.70	7.75
September.....	7.95	7.95	7.80	7.80
PORK—(Per barrel)—				
July.....	12.57	12.57	12.52	12.57
September.....	13.00	13.00	12.77	12.80

THURSDAY, JULY 6, 1905.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
July.....	7.15	7.15	7.05	7.05
September.....	7.35	7.35	7.25	7.27
RIBS—(Boxed 25c. more than loose)—				
July.....	7.75	7.75	7.75	7.75
September.....	7.85	7.85	7.77	7.77
PORK—(Per barrel)—				
July.....	12.55	12.55	12.50	12.50
September.....	12.85	12.85	12.72	12.75

FRIDAY, JULY 7, 1905.

	Open.	High.	Low.	Close.
LARD—(Per 100 lbs.)—				
July.....	7.05	7.05	7.00	7.02
September.....	7.30	7.30	7.17	7.20
RIBS—(Boxed 25c. more than loose)—				
July.....	7.75	7.75	7.75	7.75
September.....	7.82	7.82	7.75	7.77
PORK—(Per barrel)—				
July.....	12.57	12.57	12.55	12.55
September.....	12.80	12.80	12.70	12.77

CHICAGO PROVISION LETTER.

(Special Letter to The National Provisioner from C. D. Forsyth & Co.)

Chicago, July 5.—We quote to-day's market as follows: Green hams, 10@12 ave., 10@10 1/2; 12@14 ave., 9 1/2@9 3/4; 14@16 ave., 9 1/2@9 3/4; 18@20 ave., 9 1/2@9 3/4; green picnics, 5 @6 ave., 6 1/2; 6@8 ave., 6 1/2; 8@10 ave., 6 1/2; 10@12 ave., 6 1/2; green N. Y. shoulders, 10@12 ave., 6 1/2; 12@14 ave., 6 1/2; green skinned hams, 18@20 ave., 10 1/2@10 1/2; green clear bellies, 8@10 ave., 10 1/2; 10@12 ave., 9 1/2; No. 1 S. P. hams, 8@10 ave., 10 1/2; 10@12 ave., 9 1/2; 12@14 ave., 9 1/2; 14@16 ave., 9 1/2; No. 1 S. P. skinned hams, 16@18 ave., 10 1/2; 18@20 ave., 10 1/2; 20@22 ave., 10 1/2; 22@24 ave., 10 1/2; 24@26 ave., 10; No. 1 S. P. picnics, 5@7 ave., 6 1/2; 6@7 ave., 6 1/2; 6@8 ave., 6 1/2; 7@9 ave., 6 1/2; 10@12 ave., 6; No. 1 S. P. N. Y. shoulders, 8@10 ave., 6 1/2; 10@12 ave., 6 1/2; S. P. clear bellies, 6@8 ave., 11 1/2; 8@10 ave., 10 1/2; 10@12 ave., 8 3/4; No. 1 S. P. picnics, 8@10 ave., 6 1/2.

Prices on S. P. meats are all loose, f. o. b. Chicago.

CHICAGO RETAIL FRESH MEATS.

NOTE.—It is difficult to quote flat retail figures applicable to the whole of the city, every market having a practically different scale according to location, class and volume of trade, etc.

Beef.

Native Rib Roasts.....	25 @20
Native Sirloin Steaks.....	18 @20
Native Porterhouse Steaks.....	22 @25
Native Pot Roasts.....	8 @10
Rib Roasts from light cattle.....	9 @12 1/2
Beef Stew.....	5 @8
Boneless Corned Briskets, Native.....	8 @10
Corned Ribs.....	8 @8
Corned Flanks.....	8 @5
Round Steaks.....	12 @12 1/2
Round Roasts.....	12 @12 1/2
Shoulder Steaks.....	10 @10
Shoulder Roasts.....	10 @12 1/2
Shoulder Neck End, Trimmed.....	7 @7
Rolls Roast.....	10 @12 1/2

Lamb.

Hot-house Spring Lamb, hind quar.....	\$2.00
Hot-house Spring Lamb, fore quar.....	1.50
Spring Lamb (1905), hind quar., each.....	1.75
Spring Lamb (1905), fore quar., each.....	1.25
Hind Quarters.....	10
Fore Quarters.....	12 1/2
Legs.....	16
Stew.....	10
Shoulders.....	10
Chops, Rib and Loin.....	20

Mutton.

Legs.....	12 1/2
Stew.....	5
Shoulders.....	8
Hind Quarters.....	12 1/2
Fore Quarters.....	8
Rib and Loin Chops.....	18

Pork.

Pork Loin.....	10
Pork Chops.....	11
Pork Tenderloins.....	18
Pork Butts.....	9
Spare Ribs.....	6
Blades.....	5
Hocks.....	7
Pigs' Heads.....	5
Leaf Lard.....	9

Veal.

Hind Quarters.....	12 1/2
Fore Quarters.....	8
Legs.....	16
Breasts.....	8 @10
Shoulders.....	10
Cutlets.....	20

Butchers' Offal.

Tallow.....	3 @3 1/2
Mixed Bone and Tallow.....	1 1/2 @2 1/2
Calfskins, 8 to 15 lbs.....	15 @15
Calfskins, under 8 lbs. (deacones).....	8 @8

SOUTH WATER STREET MARKETS.

Live Poultry.

Turkeys.....	@16
Fowls.....	@11 1/2
Roosters.....	7 @8
Springs.....	16 @20
Ducks.....	10 @14
Geese.....	8 @9

Dressed Iced Poultry.

Turkeys.....	14 @15
Chickens.....	@11 1/2
Springs.....	16 @20
Ducks.....	10 @14
Geese, per dozen.....	4.00@6.00
Capons.....	16 @20

Veal.

Choice.....	7 1/2 @9
Good.....	6 @7
Medium.....	5 @6
Small.....	4 @5
Coarse.....	3 @4

Butter.

Creamery, Prints.....	@21 1/2
Creamery, Extras.....	@20 1/2
Creamery, Firsts.....	18 @19
Creamery, Seconds.....	16 @17
Dairies, Choice.....	@18
Dairies, Firsts.....	@17
Dairies, Ladies.....	16 @16 1/2
Dairies, Packing Stocks.....	14 @14
Renovated.....	17 1/2 @18

Eggs.

Extras.....	17 @17 1/2
Prime Firsts.....	@15 1/2
Firsts.....	@14
Fresh, at market, cases inc.....	12 1/2 @13 1/2

SEE THE LIST OF
BARGAINS

ON PAGE 48

CHICAGO MARKET PRICES

WHOLESALE FRESH MEATS.

Carcass Beef.	
Western Cows	5% @ 6
Native Cows	6 @ 6 1/2
Western Steers	6 1/2 @ 6 3/4
Good Native Steers	7 1/2 @ 8
Native Steers, Medium	7 @ 7 1/4
Heifers, Good	6 3/4 @ 7 1/4
Heifers, Medium	6 @ 6 3/4
Hind Quarters	1% c. over Straight Beef
Fore Quarters	1% c. under Straight Beef

Beef Cuts.

Steer Chucks	5 1/2 @ 6
Cow Chucks	4 1/2 @ 5
Boneless Chucks	4 @ 4 1/2
Medium Plates	3 1/2 @ 4
Steer Plates	4 @ 4 1/2
Cow Rounds	6 1/2 @ 7
Steer Rounds	8 @ 8 1/2
Cow Loins, Common	8 @ 8 1/2
Cow Loins, Medium	9 @ 9 1/2
Cow Loins, Good	10 1/2 @ 10 1/2
Steer Loins, Light	11 @ 11
Steer Loins, Heavy	11 1/2 @ 11 1/2
Beef Tenderloins, No. 1	11 @ 11
Beef Tenderloins, No. 2	10 1/2 @ 10 1/2
Strip Loins	7 @ 7
Sirloin Butts	8 1/2 @ 8 1/2
Shoulder Clods	6 @ 6
Rolls	5 1/2 @ 5 1/2
Rump Butts	4 @ 4
Trimblings	3 1/2 @ 3 1/2
Shank	9 1/2 @ 9 1/2
Cow Ribs, Heavy	10 @ 10
Cow Ribs, Common Light	10 @ 10
Steer Ribs, Light	10 1/2 @ 10 1/2
Steer Ribs, Heavy	10 1/2 @ 10 1/2
Loin Ends, steer-native	9 1/2 @ 10
Loin Ends, cow	7 @ 7
Hanging Tenderloins	6 1/2 @ 6 1/2
Flank Steak	6 @ 6

Beef Offal.

Livers	3 @ 3
Hearts	2 1/2 @ 2 1/2
Tongues	12 @ 12 1/2
Sweetbreads	17 @ 17
Ox Tail, per lb.	3 1/2 @ 3 1/2
Fresh Tripe-plain	2 1/2 @ 2 1/2
Fresh Tripe, H. C.	4 @ 4
Kidneys, each	3 @ 3
Brains	3 @ 3

Veal.

Heavy Carcass Veal	7 @ 7 1/2
Light Carcass	8 @ 8 1/2
Medium Carcass	9 @ 9 1/2
Good Carcass	10 @ 10
Medium Saddles	11 @ 11
Good Saddles	12 1/2 @ 12 1/2
Medium Racks	6 @ 6
Good Racks	7 1/2 @ 8

Veal Offal.

Brains, each	3 @ 3
Sweetbreads	17 @ 17
Plucks	20 @ 20
Heads, each	10 @ 10

Lamb.

Medium Caul (Spring)	11 1/2 @ 11 1/2
Good Caul	12 1/2 @ 12 1/2
Round Dressed Lamb	13 @ 13
Saddles Caul	14 @ 14
R. D. Lamb Saddles	15 @ 15
Caul Lamb Racks	9 @ 9
R. D. Lamb Racks	10 @ 10
Lamb Fries, per pair	8 @ 8
Lamb Tongues, each	3 @ 3
Lamb Kidneys, each	1 1/2 @ 1 1/2

Mutton.

Medium Sheep	8 @ 8 1/2
Good Sheep	9 @ 9
Medium Saddles	10 @ 10
Good Saddles	11 @ 11
Medium Racks	7 @ 7
Good Racks	7 1/2 @ 7 1/2
Mutton Legs	10 @ 10
Mutton Stew	4 1/2 @ 4 1/2
Mutton Loins	10 @ 10
Sheep Tongues, each	3 @ 3
Sheep Heads, each	5 @ 5

Fresh Pork, Etc.

Dressed Hogs	7 @ 7 1/4
Pork Loins	9 @ 9 1/4
Leaf Lard	7 @ 7
Tenderloins	16 @ 16
Spare Ribs	4 1/2 @ 4 1/2
Butts	7 1/4 @ 7 1/4
Hocks	4 1/2 @ 4 1/2
Trimblings	4 @ 4
Tails	4 @ 4
Snouts	3 @ 3
Pigs' Feet	2 1/2 @ 2 1/2
Pigs' Heads	3 1/2 @ 3 1/2
Blade Bones	4 1/2 @ 4 1/2
Cheek Meat	3 @ 3
Hog Plucks	4 @ 4
Bone Bones	2 @ 2
Skinned Shoulders	7 @ 7
Pork Hearts	2 1/2 @ 2 1/2
Pork Kidneys	2 1/2 @ 2 1/2
Pork Tongues	10 @ 10
Slip Bones	4 @ 4
Tail Bones	3 1/2 @ 3 1/2
Brains	3 @ 3
Backfat	6 1/2 @ 6 1/2
Hams	10 1/2 @ 11 1/2
Calas	7 @ 7 1/4
Shoulders	7 @ 7 1/4
Belies	8 @ 8

SAUSAGE.

Cloth Bologna	5 1/2 @ 5 1/2
Bologna, large, long, round and cloth	5 @ 5
Choice Bologna	6 @ 6
Viennas	7 @ 7
Frankfurters	8 1/4 @ 8 1/4
Blood, Liver and Headcheese	5 1/2 @ 5 1/2
Tongue	8 @ 8
White Tongue	8 @ 8
Minced Ham	8 @ 8
Prepared Ham	8 1/2 @ 8 1/2
New England Ham	10 @ 10
Compressed Ham	9 @ 9
Large Compressed Ham	9 @ 9
Berliner Ham	7 @ 7
Boneless Ham	10 @ 10
Oxford Ham	10 @ 10
Polish Sausage	6 @ 6
Leona, Garlic, Knoblauch	6 @ 6
Smoked Pork	6 @ 6
Veal Ham	6 @ 6
Farm Sausage	10 @ 10
Pork Sausage, bulk or link	7 1/2 @ 7 1/2
Pork Sausage, short link	7 1/2 @ 7 1/2
Special Prepared Ham	7 1/2 @ 7 1/2
Boneless Pigs' Feet	5 @ 5
Han Bologna	7 @ 7
Special Compressed Ham	7 @ 7
Boston Roll	7 @ 7
Cubana Sausage	— @ —

Summer Sausages.

Supreme Summer, H. C., New Medium Dry	16 @ 16
German Salami, New Dry	14 @ 14
Holsteiner, New	11 @ 11
Mettwurst, New	12 @ 12
Farmer, New	12 @ 12
Darles, H. C., New	17 @ 17
Italian Salami	17 @ 17
Monarque Cervelat	13 @ 13

Sausage in Oil.

Smoked Pork, 1-50	15.75 @ 15.75
Smoked Pork, 2-20	3.25 @ 3.25
Bologna, 1-50	2.75 @ 2.75
Bologna, 2-20	2.75 @ 2.75
Viennas, 1-50	4.25 @ 4.25
Viennas, 2-20	3.75 @ 3.75

Sausage in Brine.

Fresh Pork Link	8 @ 8
Liver Sausage	6 1/2 @ 6 1/2
Blood Sausage	6 @ 6
Head Cheese	6 1/2 @ 6 1/2
Bologna	6 1/2 @ 6 1/2
Vienna	8 @ 8

VINEGAR PICKLED GOODS.

Pickled Pigs' Feet, in 200-lb. barrels	7.00 @ 7.00
Pickled Plain Tripe, in 200-lb. barrels	4.50 @ 4.50
Pickled H. C. Tripe, in 200-lb. barrels	7.75 @ 7.75
Pickled Ox Lips, in 200-lb. barrels	11.00 @ 11.00
Pickled Pigs' Snouts, in 200-lb. barrels	12.00 @ 12.00
Lamb Tongue, Short Cut, barrels	30.00 @ 30.00

CORNED, BOILED AND ROAST BEEF.

1 lb., 2 doz. to case	Per doz. \$1.30
2 lbs., 1 or 2 doz. to case	2.25 @ 2.25
4 lbs., 1 doz. to case	4.70 @ 4.70
6 lbs., 1 doz. to case	8.00 @ 8.00
14 lbs., 1/2 doz. to case	18.00 @ 18.00

EXTRACT OF BEEF.

1 oz. jars, 1 dozen in box	Per doz. \$2.25
2 oz. jars, 1 dozen in box	3.55 @ 3.55
4 oz. jars, 1 dozen in box	6.50 @ 6.50
8 oz. jars, 1/2 dozen in box	11.60 @ 11.60
6 oz. jars, 1/2 dozen in box	22.00 @ 22.00
2, 5 and 10 lb. tins	\$1.75 per lb.

BARRELED BEEF AND PORK.

Extra Plate Beef	Per bbl. 11 @ 11
Plate Beef	9 @ 9
Extra Mess Beef	9.50 @ 9.50
Prime Mess Beef	10.00 @ 10.00
Beef Hams	18.50 @ 18.50
Rump Butts	9.00 @ 9.00
Mess Pork	13.00 @ 13.00
Clear Fat Backs	13.75 @ 13.75
Family Back Pork	— @ —
Bean Pork	11.00 @ 11.00

LARD.

Pure leaf, kettle rendered, per lb., tierces	8 1/2 @ 8 1/2
Lard, substitute, tierces	8 @ 8
Lard, compounds	5 1/2 @ 5 1/2
Barrels	1/2 c. over tea
Half barrels	1/4 c. over tea
Tubs, from 10 to 80 lbs.	1/4 c. to 1 c. over tea
Cooking oil, per gal.	35c. @ 35c.

BUTTERINE.

F. O. B. CHICAGO.

No. 1 natural color	11 @ 11
No. 2, natural color	12 1/2 @ 12 1/2
No. 3, natural color	13 @ 13
No. 4, natural color	14 @ 14
No. 5, natural color	15 @ 15
No. 6, natural color	16 @ 16

DRY SALT MEATS.

Clear Bellies, 14 @ 16 average	7 1/2 @ 7 1/2
Rib Bellies, 14 @ 16 average	7 1/2 @ 7 1/2
Fat Backs	6 @ 6
Regular Plates	6 @ 6
Short Clears	7 1/4 @ 7 1/4

WHOLESALE SMOKED MEATS.

Hams, 12 lbs. average	11 @ 11
Hams, 12 lbs. average	10 1/2 @ 10 1/2
Hams, 16 lbs. average	10 1/2 @ 10 1/2
Skinned Hams	11 1/2 @ 11 1/2

Calas, 6 @ 7 lbs. average	7 1/4 @ 7 1/4
Calas, 8 @ 12 lbs. average	7 @ 7
Breakfast Bacon, fancy	15 @ 15
Wide, 8 @ 10 average, and Strip, 4 @ 5 ave.	10 1/2 @ 10 1/2
Wide, 10 @ 12 average, and Strip, 5 @ 6 ave.	10 @ 10
Wide, 12 @ 14 average, and Strip, 6 @ 7 ave.	9 1/2 @ 9 1/2
Dried Beef Sets	12 1/2 @ 12 1/2
Dried Beef Insides	14 1/2 @ 14 1/2
Dried Beef Knuckles	13 1/2 @ 13 1/2
Dried Beef Outsoles	10 1/2 @ 10 1/2
Regular Balled Hams	15 @ 15
Smoked Balled Hams	15 1/2 @ 15 1/2
Bolled Picnic Hams	10 1/2 @ 10 1/2
Cooked Loin Rolls	17 @ 17

SAUSAGE CASINGS.

F. O. B. CHICAGO.

Rounds, per set	12 @ 12
Middles, per set	40 @ 40
Beef bungs, per piece	5 1/2 @ 5 1/2
Hog casings, as packed	25 @ 25
Hog casings, free of salt	48 @ 48
Hog middles	12 @ 12
Hog bungs, export	12 @ 12
Hog bungs, mediums, each	8 @ 8
Hog bungs, primes	4 @ 4
Hog bungs, narrow	2 @ 2
Imported sheep casings, wide	50 @ 50
Imported sheep casings, medium wide	60 @ 60
Imported sheep casings, narrow	30 @ 30
Beef wessands, No. 1	5 1/2 @ 5 1/2
Beef bladders, medium	4 @ 4
Beef bladders, small, per doz.	16 @ 16
Hog stomachs, each	4 @ 4

FERTILIZERS.

Dried blood, per unit	\$2.35 @ \$2.35
Hoof meal, per unit	2.30 @ 2.30
Concent, tankage, 15% per unit	2.15 @ 2.15
Ground tankage, 12%	2.15 @ 2.15
Ground tankage, 11% per unit	2.12 1/2 @ 2.12 1/2
Ground tankage, 10% per unit	2.07 1/2 @ 2.07 1/2
Ground tankage, 9 and 20%	2.00 @ 2.00
Ground tankage, 6 and 35% ton	16.00 @ 16.00
Ground raw bone, per ton	25.00 @ 25.00
Ground steam bone, per ton	18.00 @ 18.00
Unground tankage, per ton less than ground, 50c.	

HORNS, HOOFS AND BONES.

Horns, No. 1, 65 @ 70 lbs. average	\$275.00 @ \$275.00
Hoofs, black, per ton	25.00 @ 25.00
Hoofs, striped, per ton	30.00 @ 30.00
Hoofs, white, per ton	50.00 @ 50.00
Flat shin bones, 35 @ 40 lbs. average ton	45.00 @ 45.00
Round shin bones, 35 @ 40 lbs. average ton	45.00 @ 45.00
Round shin bones, 50 @ 52 lbs. average ton	65.00 @ 65.00
Long thigh bones, 50 @ 95 lbs. average ton	95.00 @ 95.00
Jaws, skulls and knuckles, per ton	25.00 @ 25.00

LARDS.

Prime steam, cash	7.15 @ 7.15
Prime steam, loose	6.00 @ 6.00
Neutral	7 1/2 @ 7 1/2
Compound	5 1/2 @ 5 1/2
Leaf	6.75 @ 6.75

STEARINES.

Lard	8 @ 8
Oleo, prime	7 1/2 @ 7 1/2
Oleo No. 2	7 @ 7
Mutton	7 1/2 @ 7 1/2
Tallow	5 1/2 @ 5 1/2
Grease	4 1/2 @ 4 1/2

OILS.

Lard oil, extra winter strained, tierces	55 @ 55
Oleo oil, extra	9 @ 9
Oleo oil, No. 2	8 1/2 @ 8 1/2
Oleo stock	7 1/2 @ 7 1/2
Neatsfoot oil, pure, tierces	55 @ 55
Tallow, prime, tierces	45 @ 45

TALLOW.

Edible	5 1/2 @ 5 1/2
Prime city	5 1/2 @ 5 1/2
Choice country	4 1/2 @ 4 1/2
Packers' prime	5 @ 5
Packers' No. 1	4 1/2 @ 4 1/2
Packers' No. 2	3 1/2 @ 3 1/2
Renderers' No. 1	4 1/2 @ 4 1/2

GREASES.

White, choice	4 1/2 @ 4 1/2
White, "A"	4 1/2 @ 4 1/2
White, "B"	4 @ 4
Bone	3 1/2 @ 3 1/2
House	3 @ 3
Yellow	3 @ 3
Brown	3 1/2 @ 3 1/2
Glue stock	3 1/2 @ 3 1/2
Neatsfoot stock	3 1/2 @ 3 1/2

COTTONSEED OILS.

P. S. Y., loose	26 1/2 @ 27
P. S. Y., soap grade	26 @ 26
Soap bbls., concn., 63 @ 65% F. A.	1 1/2 @ 1 1/2
Soap stock, bbls., reg 50% F. A.	1.05 @ 1.05

COOPERAGE.

Tierces	\$1.17 1/2 @ \$1.20
Barrels, oak	92 @ 92
Barrels, ash	82 1/2 @ 82

CURING MATERIALS.

Refined saltpetre	4 1/2 @ 5 1/2
Boracic acid, crystal to powdered	10 @ 11
Borax	7 @ 8 1/2
Sugar	
Pure open kettle	4 1/2 @ 4 1/2
White clarified	5 1/2 @ 5 1/2
Plantation, granulated	5 1/2 @ 5 1/2
Yellow, clarified	5 @ 5
Salt	
Ashton, in bags, 224 lbs.	\$2.50 @ \$2.50
Eng. packing, in bags, 224 lbs.	1.45 @ 1.45
Michigan, medium, car lots, per ton	3.40 @ 3.40
Michigan, granulated, car lots, per ton	3.00 @ 3.00
Casing salt, bbls., 280 lbs., 2X and 3X	1.00 @ 1.00

NEW YORK MARKET PRICES

LIVE CATTLE.

Good to choice native steers.....	\$5.15@46.00
Medium to fair native steers.....	4.40@ 5.00
Poor to ordinary native steers.....	3.55@ 4.30
Stags and oxen.....	3.00@ 4.50
Bulls and dry cows.....	1.75@ 4.25
Good to choice native steers one year ago.....	5.90@ 6.60

LIVE CALVES.

Live veal calves, prime, per 100 lbs.....	@47.50
Live veal calves, fair to good, per 100 lbs.....	\$6.50@ 7.25
Live veal calves, com. to med., 100 lbs.....	5.00@ 6.25
Live veal calves, small, per 100 lbs.....	4.00@ 4.50
Live calves, buttermilks, per 100 lbs.....	3.57@ 4.50
Live calves, grassers, per 100 lbs.....	—@ —
Live calves, yearlings, per 100 lbs.....	—@ —
Live calves, western, per 100 lbs.....	—@ —

LIVE SHEEP AND LAMBS.

Live lambs, per 100 lbs.....	\$7.25@40.05
Live lambs, per 100 lbs.....	6.00@ 7.00
Live yearling lambs, per 100 lbs.....	5.00@ 6.50
Live yearlings, culls, per 100 lbs.....	4.00@ 4.75
Live sheep, per 100 lbs.....	3.50@ 5.35
Live sheep, culls, per 100 lbs.....	3.00@ 3.25

LIVE HOGS.

Hogs, heavy weights (per 100 lbs.).....	\$6.10@46.15
Hogs, medium.....	6.20@ 6.25
Hogs, light to medium.....	6.25@ 6.30
Pigs.....	@ 6.30
Roughs.....	5.10@ 5.25

DRESSED BEEF.

CITY DRESSED.

Choice native, heavy.....	@ 8½
Choice native, light.....	@ 8½
Common to fair, native.....	7 @ 8

WESTERN DRESSED BEEF.

Choice, native, heavy.....	@ 8½
Choice native, light.....	8 @ 8½
Native, com. to fair.....	7½ @ 7½
Choice Western, heavy.....	7½ @ 8
Choice Western, light.....	7 @ 7½
Common to fair Texas.....	6 @ 7
Good to choice heifers.....	@ 7
Common to fair heifers.....	6 @ 7
Choice cows.....	@ 6½
Common to fair cows.....	@ 5½
Good to choice oxen and stags.....	@ 7
Common to fair oxen and stags.....	@ 6½
Fleshy bologna bulls.....	@ 5½
Fresh pork loins, Western.....	10½ @ 11

DRESSED CALVES.

Veals, city dressed, prime, per lb.....	11 @ 11½
Veals, good to choice, per lb.....	10 @ 11
Calves, country dressed, prime, per lb.....	9½ @ 10
Calves, country dressed, fair to good.....	@ 9
Calves, country dressed, common.....	8½ @ 9

DRESSED HOGS.

Pigs.....	8½ @ 8½
Hogs, heavy.....	7½ @ 7½
Hogs, 180 lbs.....	7½ @ 7½
Hogs, 160 lbs.....	@ 8
Hogs, 140 lbs.....	8 @ 8½

DRESSED SHEEP AND LAMBS.

Spring lambs, choice, per lb.....	@ 15½
Spring lambs, good.....	14 @ 15
Spring lambs, culls.....	@ 13
Sheep, choice.....	10 @ 11
Sheep, medium to good.....	9½ @ 10
Sheep, culls.....	@ 8½

PROVISIONS.

(Jobbing Trade.)

Smoked hams, 10 lbs. average.....	11½ @ 12¼
Smoked hams, 12 to 14 lbs. average.....	11½ @ 12
Smoked hams, heavy.....	11½ @ 12
California hams, smoked, light.....	8 @ 8½
California hams, smoked, heavy.....	7½ @ 8
Smoked shoulders.....	8½ @ 8½
Smoked bacon, boneless.....	12 @ 12½
Smoked bacon (rib in).....	11½ @ 12
Dried beef sets.....	13 @ 13½
Smoked beef tongue, per lb.....	17½ @ 18½
Pickled bellies, heavy.....	9½ @ 9½

BONES, HOOF AND HORNS.

Round shin bones, av. 50@80 lbs. cut, per 100 bones, per 2,000 lbs.....	\$35.00@400.00
Flat shin bones, av. 40@45 lbs. cut, per 100 bones, per 2,000 lbs.....	42.00@ 45.00
Hoofs, per ton.....	@ 30.00
Thigh bones, av. 90@95 lbs. cut, per 100 bones, per 2,000 lbs.....	75.00
Horns, 7½ oz. and over, steers, first quality, per ton.....	300.00

BUTCHERS' SUNDRIES.

Fresh steer tongues.....	80@90c. a piece
Fresh cow tongues.....	50@60c. a piece
Calves' head, scalded.....	30@40c. a piece
Sweetbreads, veal.....	25@75c. a pair
Sweetbreads, beef.....	18@25c. a pound
Calves' liver.....	25@50c. a piece
Beef kidneys.....	7@12c. a piece
Mutton kidneys.....	1½@3c. a piece
Livers, beef.....	4@5c. a pound
Oxtails.....	5@7c. a piece
Hearts, beef.....	6@10c. a piece
Rolls, beef.....	10@12c. a pound
Tenderloin beef, Western.....	15@25c. a pound
Lambs' fries.....	6@10c. a pair
Fresh pork, loins, city.....	10
Fresh pork, loins, Western.....	9½

BUTCHERS' FAT.

Ordinary shop fat.....	2½ @ 3
Suet, fresh and heavy.....	4 @ 5
Shop bones, per cwt.....	@ 25

SAUSAGE CASINGS.

Sheep, imp., wide, per bundle.....	80
Sheep, imp., wide, per keg, 50 bundles.....	\$40.00
Sheep, imp., medium, per bundle.....	80
Sheep, imp., per bundle, narrow.....	44
Sheep, imp., Russian Rings.....	—
Hog, American, free of salt, in tea. or bbls., per lb., f. o. b.....	50
Hog, American, kegs, per lb., f. o. b.....	50
Beef, rounds, per set, f. o. b. Chicago.....	12
Beef, rounds, per set, f. o. b. New York.....	13
Beef, bungs, piece, f. o. b. New York.....	3
Beef, bungs, per lb.....	6½
Beef, middles, per set, f. o. b. Chicago.....	40
Beef, middles, per set, f. o. b. New York.....	42
Beef, middles, per lb.....	6½
Beef weasands, per 1,000, No. 1's.....	@ 5½
Beef weasands, per 1,000, No. 2's.....	2½ @ 3

SPICES.

	Whole.	Ground.
Pepper, Sing., white.....	18½	20
Pepper, Sing., black.....	13½	14½
Pepper, Penang, white.....	17	18½
Pepper, red, Zanzibar.....	15	18
Pepper, shot.....	14½	—
Allspice.....	7	9½
Coriander.....	10	12
Cloves.....	12½	13½
Mace.....	42	45

SALTPETRE.

Crude.....	@ 4½
Refined—Granulated.....	4½ @ 4½
Crystals.....	4½ @ 5½
Powdered.....	5 @ 5½

GREEN CALFSKINS.

No. 1 skins.....	\$0.19
No. 2 skins.....	.17
No. 1 B. M. skins.....	.17
No. 2 B. M. skins.....	.15
No. 1, 12½-14.....	1.90
No. 2, 12½-14.....	1.65
No. 1 B. M., 12½-14.....	1.70
No. 2 B. M., 12½-14.....	1.50
No. 1 kips, 14-18.....	2.15
No. 2 kips, 14-18.....	1.90
No. 1 B. M. kips.....	1.90
No. 2 B. M. kips.....	1.80
No. 1 heavy kips, 18 and over.....	2.50
No. 2 heavy kips, 18 and over.....	2.25
Branded skins.....	.11
Branded kips.....	1.40

Heavy branded kips.....	1.05
Ticky skins.....	.11
Ticky kips.....	1.50
Heavy ticky kips.....	1.70
No. 3 skins.....	.11

DRESSED POULTRY.

FRESH KILLED.

Turkeys—Western, average best.....	17 @
Western, mixed, fair to good.....	15 @ 16
Western, poor.....	13 @ 14
to pair, per lb.....	28 @ 30
Pennsylvania, broilers.....	24 @ 25
Western, broilers, dry picked.....	19 @ 22
Western, broilers, scalded.....	19 @ 21
Southern, broilers, scalded.....	15 @ 16
Fowls—Western, dry-picked, medium size.....	@ 12½
Western, scalded, medium size.....	@ 12½
Western, heavy weights.....	@ 12½
Southern & Southw'n, medium size.....	@ 12½
Western & Southwestern fowls and chickens, poor to fair.....	10 @ 11½
Old cocks, per lb.....	8 @ 9
Spring Ducks—Long Island and Eastern.....	@ 17
Pennsylvania and Virginia, per lb.....	16 @ 17
Squabs—Prime, large, white, per dozen.....	2.50 @ 2.75
Mixed, per dozen.....	2.12 @ 2.25
Dark, per dozen.....	1.50 @ 1.62

LIVE POULTRY.

Chickens, Western, per lb.....	10 @ 20
Southern, per lb.....	@ 18
Fowls—per lb.....	@ 13½
Roosters—old, per lb.....	@ 9
Turkeys—old, per lb.....	@ 13½
Ducks—Western, average, per pair.....	70 @ 80
Southern, average per pair.....	60 @ 65
Geese—Western, average, per pair.....	1.00 @ 1.25
Southern, average, per pair.....	@ 1.00
Live Pigeons—Per pair.....	@ 25

FERTILIZER MARKETS.

BASIS, NEW YORK DELIVERY.

Bone meal, steamed, per ton.....	\$22.00 @ 23.00
Bone meal, raw, per ton.....	25.00 @ 25.50
Nitrate of soda—future.....	2.30 @ 2.40
Nitrate of soda—spot.....	@ 2.40
Bone black, discard, per ton.....	13.00 @ 14.00
Bone black, discard sugar house, del. New York.....	15.00 @ 20.00
Dried blood, N. Y., 12@13 per cent. ammonia.....	2.55 @ 2.80
Dried blood, West, high grade fine.....	2.90 @ 2.95
Tankage, 9 and 20 p. c., f. o. b. Chicago.....	1.95 and 10
Tankage, 8 and 20 p. c., f. o. b. Chicago.....	18.00 @ 19.00
Tankage, 7 and 30 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Tankage, 6 and 35 p. c., f. o. b. Chicago.....	15.00 @ 16.00
Garbage tankage, f. o. b. New York.....	8.00 @ 9.00
Fish scrap, dried, 11 p. c. ammonia and 15 p. c. bone phosphate.....	2.50 and 10
Wet, acidulated, 6 p. c. ammonia, per ton.....	2.40 and 10
Azontine, per unit, del. New York.....	2.80 @ 2.95
Sulphate ammonia gas, for shipment, per 100 lbs.....	3.15 @ 3.20
Sulphate ammonia gas, per 100 lbs. spot.....	3.30 @ 3.35
Sulphate ammonia bone, per 100 lbs.....	3.10 @ 3.15
So. Carolina phosphate rock, ground, per 2,000 lbs., f. o. b. Charleston.....	6.50 @ 7.75
So. Carolina phosphate rock, undried, f. o. b. Ashley River, per 2,400 lbs.....	3.50 @ 3.75
The same, dried.....	3.75 @ 4.00

POTASHES, ACCORDING TO QUANTITY.

Kainit, shipment, per 2,240 lbs.....	\$8.95 @ 9.50
Kainit, ex-store, in bulk.....	9.60 @ 10.65
Kieserit, future shipment.....	7.00 @ 7.35
Muriate potash, 80 p. c., ex-store.....	1.95 @ 2.05
Muriate potash, 80 p. c., future shipment.....	1.90 @ 2.00
Double manure salt (46@49 p. c., less than 2½ p. c. chloride), to arrive per lb. basis 48 p. c.....	1.16½ @ 1.25½
Sulphate potash, to arrive (basis 90 p. c.).....	2.16½ @ 2.37½
Sylvinit, 24 to 36 p. c., per unit, S. P.....	.39 @ .40

LIVE STOCK REVIEWS

CHICAGO

(Special Letter to The National Provisioner from the Bowles Livestock Commission Co.)

Union Stock Yards, Chicago, July 5.

CATTLE.—Notwithstanding the holiday at the opening of this week, receipts the first three days aggregate 40,987, against 39,419 same period last week and 29,160 the corresponding period last year. Monday's receipts were 13,987. The run was away below expectations and the market was generally 15c. higher, sales in many cases were 25c. higher than the close of last week. The Eastern and export orders were rather small, which made the situation more comfortable for the local packers. Best cattle sold at \$6.25 for 36 Angus averaging 1,330 lbs. A considerable number went at \$5.90@6.10, and the bulk of the good to choice 1,200@1,400 lb. cattle went at \$5.25@5.80. A fair kind went to the killers at \$5 and plainer grades, including some strong weights around \$4.50. Inferior little killers sold down to \$3.60. Butcher stock was 10c. higher, Texas steers advanced 15c., 14 loads averaging 1,070@1,110 lbs. went at \$4.50@4.55. Some 1,351 lb. Texas stags at \$3.85. Stockers and Feeders unchanged. Best heavy feeders \$4.10@4.45, the good kind at \$3.60@4.00, stockers down to \$2.25. Tuesday, July 4, the market was closed. To-day's receipts estimated at 27,000. Prices were 15@25c. lower and in extreme cases 40c. under Monday. Steers such as sold at \$4.60@4.65 to-day would have sold around \$5 Monday. British cables indicated a better feeling in the foreign markets, but the advices were not strong enough to influence export orders. Handy light steers met with best inquiry. Heavy grade were neglected owing to the light Eastern orders. Tops again reached \$6.25, 417 Angus averaging 1,405. They were better than Monday's tops. Butcher's stock is 9@10c. Export bulls in small demand. Fancy distillers around \$3.75 and few over \$3.50. Grass cattle from the Northwest ranges are expected to move toward Chicago before the end of this month, but the heavy shipping will be about a month later.

HOGS.—Receipts of hogs so far this week about 64,000, which is only fairly liberal considering the one holiday on yesterday. Monday's receipts were 31,000, which was somewhat less than expected and the market was quite active with prices mostly 10c. higher for the bulk of the hogs. Shipping orders were quite liberal on Monday and speculators were active buyers. After the demand from these two sources was filled the big packers refused to pay the advance, and at the close of the market a good share of the advance was lost, with some hogs unsold. Receipts to-day estimated at 33,000, which was considerably more than the trade expected. The demand was fairly good, however, and the bulk of the sales were made within 5c. of the best sales on Monday. The best hogs sold this morning at \$5.60, with the bulk of the sales at \$5.45@5.55. From the best information we can get from the different States west of Chicago we believe there is a fairly liberal supply of matured hogs; however, we think the demand will be sufficient to take the receipts at prices at about their present level. We quote to-day's sales as follows: Good to best medium and heavyweight shippers, \$5.55@5.60; good to best heavy packing grades, \$5.45@5.50; mixed grades, \$5.45@5.55; selected light hogs, \$5.50@5.60; pigs, 5.00@5.25; rough throw-out packers, \$4.75@5.00; Government throw-outs, 2@4c.

SHEEP.—Market closed in good condition last week, but under liberal supplies native spring lambs values broke severely Monday.

Medium spring lambs that day sold 50@65c. lower with best 25@55c. off. Sheep were firm, in some cases stronger. To-day's market is heavily supplied with spring lambs. At the opening of the market all buyers were in the field for the limited number then on sale at about steady prices, but the supply being heavy a little later in the day a decline of 25@35c. was the rule on spring lambs, with sheep selling strong. Prime spring lambs sold on the early market at \$8.25, but it will be very hard to quote them above 8c. at the close with choice at \$7.75. The fair to medium grades going at \$6.50@7.50, the latter being well sorted and culls at from \$5@5.50. Sheep market ruled firm throughout the day with choice native ewes making \$5.25 generally and yearling wethers at \$5.50@6.25. The percentage of fed sheep offered is very light. These about gone. Some range sheep are coming and all meeting with ready sale. Very few feeders offered yet, but great quantities could be used here.

KANSAS CITY

(Special Wire to The National Provisioner.)

Stock Yards, Kansas City, July 7.

CATTLE.—Receipts this week again contained a larger proportion of light-weight beef cattle, a good share of stuff being grass quarantines. The demand was strong for all grades, with a mild reaction on Wednesday on account of liberal supplies that day. Best beef steers, 10@20c. higher, \$5.20@5.60; heifers, 25@35c. higher, \$4@5.35; cows, 15@25c. higher, \$3@4.50; veals a quarter higher, \$4.50@5.50; bulls stronger, \$2.50@4; quarantines, 10@20c. higher; meal-fed steers, \$4@4.60; grassers, \$3.40@4.10; cows, \$2.40@2.95.

HOGS.—Receipts this week, 37,200; last week, 50,300; same week last year, 15,300. Hog prices fluctuate mildly, but with a strong undertone to the market. Prices are higher to-day, and equal to the season's best mark; \$5.50 for tops; bulk, 5.40@5.45. Light to medium weights predominate in quantity and bring the best prices. Quality continues of the best, and a bullish feeling pervades the trade.

SHEEP.—Receipts this week, 21,200; last week, 26,500; same week last year, 5,200. Grass muttons and spring lambs made up nearly all of the receipts; prices are 25@40c. higher again this week. Lambs are the highest since Easter time, at \$7@7.40 for good springs. Grass sheep are bringing highest prices of the season, at \$5@5.40 for wethers. Demand is most keen; prices 50@75c. higher than a year ago.

HIDES are steady; green salted, 9½@10½c; bulls and stags, 8¼c; glue, 6c; dry flint butcher, 15@17c; dry glue, 9c; sheep pelts, 14@15c.

Packers' purchases this week:

	Cattle.	Hogs.	Sheep.
Armour	3,975	10,283	2,920
Cudahy	4,047	8,754	1,822
Fowler	1,458	1,523
Morris	3,470	4,302	1,858
Ruddy	250
Schwarzschild	3,884	4,951	1,952
Swift	5,546	8,755	3,517

ST. JOSEPH

(Special Letter to The National Provisioner.)

South St. Joseph, Mo., July 3.

The country was again conservative in shipments Monday, the number in sight at the five markets being only 27,300, which was 3,600 less than received last Monday, and 15,700 less than were received two weeks ago, when values were demoralized. Supplementing the small number in sight, receipts in Chicago were well within the limits of the demands of the trade, and the result was again beneficial to the country interests, as all values showed a general strengthening. Local receipts while somewhat larger than on last Monday, were still very small, and did not include any choice offerings, and only a few lots of dressed beef steers that could be classed as 10c. higher, although some holders of pretty good weighty

dressed beef steers thought they were not getting out to any better advantage than the close of last week. There was a small showing of common to fair, light and medium butcher and dressed beef steers, more or less grassy, that sold with a little more freedom than late last week, but prices did not show any particular change. There was a poor showing of all kinds of butcher stock to-day, and competition was very keen for the few in sight as buyers were hustling for enough to make a killing. As a result there was much activity, and anything at all desirable in the cow and heifer line showed a 10c. to 15c. advance over the close of last week. There were spots where bulls also met the same advance, but as a rule the trade in bulls was steady and quiet. Veals were in small supply and prices ruled steady. There was nothing doing in the stocker and feeder trade to-day, as there were no fresh arrivals of consequence. There were a few fairly large orders on hand for fleshy feeders of quality, and offerings of this quality would sell to pretty good advantage the latter part of the week. Regular dealers were also looking for the same class of stock, and also for some good twos and light young steers. There is also a better inquiry for young stock cows and stock heifers, both on order and regular dealer account, but the week opens with no improvement in the inquiry for stock bulls.

The moderate marketing of hogs at all points to-day advanced the market 5c. to 10c., with light and light mixed selling at \$5.35 to \$5.45, medium and heavy at \$5.21½ to \$5.40, and the bulk at \$5.35 to \$5.42½. These figures are only slightly under the extreme high point of the year, and should moderate marketing continue for a week or ten days, it is quite probable that values will go still higher. Packers claim that hogs are not killing out, but regardless of this assertion, they are taking everything freely and paying the advance with a good grace, which indicates that they want the hogs regardless of the higher tendency of values. The fact that a holiday breaks into the receipts for the week will have the effect of stimulating trade during the latter days, when packers will be able to take care of much larger supplies without impairing the good tone of the market.

The supply of sheep to-day was only nominal, and the market was active and steady, nothing choice on sale as good as the \$7.60 Idaho lambs last week. Pretty good Idaho yearlings and lambs sold at \$4.75.

RECEIPTS AT CENTERS

MONDAY, JULY 3.

	Cattle.	Hogs.	Sheep.
Chicago	15,000	30,000	21,000
Kansas City	5,000	5,000	2,000
Omaha	1,700	4,400	3,300

TUESDAY, HOLIDAY.

WEDNESDAY, JULY 5.

Chicago	27,000	33,000	18,000
Kansas City	10,000	13,000	5,000
Omaha	6,200	6,600	500

THURSDAY, JULY 6.

Chicago	8,000	20,000	12,000
Kansas City	8,000	9,000	5,000
Omaha	3,000	9,200	6,000

FRIDAY, JULY 7.

Chicago	4,000	14,000	8,000
Kansas City	2,000	5,000	2,000
Omaha	1,500	6,500	1,500

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SLAUGHTER REPORTS

Special reports to The National Provisioner show the number of livestock slaughtered at the following centres for the week ending July 1:

CATTLE.

Chicago	33,555
Omaha	11,245
Kansas City	26,499
St. Joseph	5,532
Cudahy	497
Sioux City	1,704
Wichita	54
New York and Jersey City	8,352
Fort Worth	10,021
Detroit	1,100
Buffalo	4,950

HOGS.

Chicago	114,423
Omaha	64,471
Kansas City	64,117
St. Joseph	51,539
Cudahy	18,375
Sioux City	24,980
Ottumwa	13,954
Cedar Rapids	14,095
Wichita	5,385
Bloomington	2,339
Indianapolis	27,543
New York and Jersey City	30,981
Fort Worth	4,014
Detroit	3,157
Buffalo	23,290

SHEEP.

Chicago	54,386
Omaha	15,152
Kansas City	21,399
St. Joseph	12,562
Cudahy	356
Sioux City	40
Wichita	32
New York and Jersey City	40,980
Fort Worth	568
Detroit	1,316
Buffalo	6,000

NEW YORK LIVESTOCK

WEEKLY RECEIPTS TO JULY 3, 1905.

	Bees.	Cows.	Calves.	Sheep.	Hogs.
Jersey City	2,223	—	2,137	39,449	10,106
Sixtieth street	502	45	7,838	1,478	27
Fortieth street	—	—	—	—	17,348
Lehigh Valley	4,470	—	—	—	—
Weehawken	1,070	—	—	—	—
Scattering	—	62	78	62	3,300
Totals	10,325	107	10,053	40,980	30,981
Totals for last week	9,775	139	10,905	38,576	28,178

WEEKLY EXPORTS.

	Live cattle.	Live sheep.	Qrs. of beef.
Schwarzschild & S., Ss. Mesaba	350	—	2,378
Schwarzschild & S., Ss. St. Paul	—	—	1,218
Schwarzschild & S., Ss. Consuelo	290	—	—
Schwarzschild & S., Ss. St. Andrew	360	—	—
J. Shamberg & Son, Ss. Mesaba	350	—	—
J. Shamberg & Son, Ss. Consuelo	300	—	—
J. Shamberg & Son, Ss. St. Andrew	360	—	—
J. Shamberg & Son, Ss. Maranense	40	—	—
Morris Beef Co., Ss. Teutonic	—	—	1,600
Morris Beef Co., Ss. Celtic	—	—	3,100
Armour & Co., Ss. St. Paul	—	—	2,400
Swift Beef Co., Ss. Teutonic	—	—	1,100
Cudahy Packing Co., Ss. Campana	—	—	1,100
Total exports	2,080	—	12,806
Total exports last week	2,028	100	11,650
Boston exports this week	2,440	—	9,250
Baltimore exports this week	836	—	—
Philadelphia exports this week	596	—	950
Montreal exports this week	2,350	98	—
Newport News exports this week	557	—	—
To London	4,240	98	8,996
To Liverpool	2,915	—	14,109
To Glasgow	1,254	—	—
To Antwerp	390	—	—
To Hull	190	—	—
To Para	40	—	—
Total to all ports	8,850	98	23,096
Total to all ports last week	10,010	850	21,100

DISINFECTION OF STOCK CARS.

Cars and other vehicles and pens or yards which have contained diseased or exposed swine shall, according to regulations of the Secretary of Agriculture, be cleansed and disinfected as soon as possible after unloading. Cars should not be removed before the inspector has had time to ascertain the condition of the animals and to give notice that the cars must be cleaned and disinfected. Cleaning and disinfection shall be done by first removing all litter and manure and then saturating the interior surfaces of the cars and the woodwork, flooring and ground of the chutes, alleys and pens with a 5 per cent. solution of 100 per cent. carbolic acid in water, with sufficient lime to show where it has been applied.

GENERAL MARKETS

LARD IN NEW YORK.

Western steam, \$7.05@7.25; city steam, \$6.75; refined, Continent, tes., \$7.45; do. South America, tes., \$8; do. do. kegs, \$9; compound, \$5.25@5.37½.

HOG MARKETS, JULY 7.

CHICAGO.—Receipts, 14,000; 5c. higher; \$5.25@5.70.

KANSAS CITY.—Receipts, 4,000; 5c. higher; \$5.35@5.47½.

OMAHA.—Receipts, 7,000; strong; \$5.25@5.35.

INDIANAPOLIS.—Receipts, 8,000; strong; \$5.40@5.75.

ST. LOUIS.—5c. higher; \$5@5.65.

EAST BUFFALO.—Receipts, 1,700; 5@10c. higher; \$6@6.05.

LIVERPOOL.

(By Cable to The National Provisioner.)

Liverpool, July 7.—Beef, extra, India mess, tes., 82s. 6d.; pork, prime mess, Western, 62s. 6d.; shoulders, 31s. 6d.; hams, short clear, 45s. 6d.; bacon, Cumberland cut, 43s.; do. short rib, 44s.; do. long clear, 28@34 lbs., 44s. 6d.; do., 35@40 lbs., 43s. 6d.; backs, 41s.; bellies, 43s. Tallow, 22s. 9d. Turpentine, 44s. 3d. Rosin, common, 9s. 6d. Lard, spot, prime Western, tes., 35s. 3d.; do. American refined, 29-lb. pails, 35s. 9d. Cheese, white new, 47s. 6d., do. colored, 48s. American steam lard (Hamburg), 50 kilos, 36 marks. Tallow, Australian (London), 25s. Cottonseed oil, refined (Hull), 18s. Refined petroleum (London), spot, 5 7-16d.; linseed (London), 41s.; linseed oil (London), 19s. 10½d.

OLEO AND NEUTRAL LARD.

The oleo market has not presented any special features during the week under review. Business has been rather quiet, but there is a firm undertone to the market, with steady demand and indications point to an advance, rather than a decline. The market for cottonseed oil is very strong in sympathy with the cotton market, but prices here are far above export basis.

FRIDAY'S CLOSINGS.

Provisions.

The hog markets were all 5c. higher for the day, and the products markets had at the opening somewhat steadier tone, although they were quiet on speculative account. Afterwards there was some weakness and a decline particularly for lard, on its full stock.

Cottonseed Oil.

The market has further eased up about ¼c., and is much quieter in the trading in futures, while export demand continues unimportant, although that there was some inquiry from the foreigners under the market. Prices on "call" for prime yellow: July at 28¾@29c., August at 29½@30c., September at 30½@30¾c., October at 30¾@31¼c. Sales 100 bbls. prime yellow July 29c.; 1,300 bbls. do. September at 30½c.; 100 bbls. do. October at 31c.

Tallow.

The weekly contract deliveries of city, hhds., in New York were made at 4¾c. The general tone of the market is steady and without change from the features noted in our review.

Oleo Stearine.

Steady at 7¼c. in New York, after the 400,000 pounds taken here for the week at that.

BALTIMORE FERTILIZER MARKET.

(Special Letter to The National Provisioner from Thomas H. White & Co.)

Baltimore, Md., July 1.—The ammoniate market the past month has been quiet. East-

ern buyers were interested to a small extent in material for early fall delivery, but only at prices under seller's quotations, while business with Southern buyers for nearby or future shipment was only possible at figures much lower than prevailing quotations. Producers are claiming light stocks, and while meeting buyers on prices here and there are making no effort to force sales. We quote: Ground tankage, 6½ and 25, \$16 per ton f. o. b. Chicago; ground tankage, 11 and 15, \$2.10 and 10 per unit f. o. b. Chicago; unground tankage, 9 and 20, \$2.05 and 10 per unit f. o. b. Chicago; ground concentrated tankage, \$2.17½ futures per unit f. o. b. Chicago; ground blood, \$2.35@2.40 per unit f. o. b. Chicago; ground blood, \$2.40@2.45 futures per unit f. o. b. Chicago; hoof meal, \$2.30 nominal per unit f. o. b. Chicago; crushed tankage, 9 and 20 (futures), \$2.50 and 10, \$2.55 and 10 c. a. f. basis Baltimore.

Nitrate of Soda.—Spot, \$2.25 per 100 lbs.; July, \$2.20 per 100 lbs.; August-December, \$2.17 per 100 lbs.; all of 1906, \$2.05 per 100 lbs.; all of 1907, \$2 per 100 lbs.

BRITISH MEAT IMPORTS.

Official statistics of imports of livestock and meat into Great Britain for the year to June 1 show that, with the resuming of Canadian cattle shipments, there is an increase in cattle of 8,587 head as compared with corresponding period of last year. On the other hand, imports of live sheep are still considerably below those of 1904, the deficiency so far being 55,591. In fresh meat there is an increase of nearly 135,000 cwts. over the five months of last year, and 370,600 cwts. more than we received during same period of 1903, all of which is practically due to the greater weight of Argentine meat, the shipments from that country being already 376,740 cwts. over those of 1904, and 551,880 cwts. over the five months' exports of 1903. The receipts of Argentine mutton remain about the same as they have been during past three years. There is also a substantial augmentation in the frozen mutton imports to be noted, although compared with 1903 it is less by 82,600 cwts. Fresh pork is nearly 43,000 cwts. less than a year ago and 56,430 cwts. short of the weight received to end of May, 1903. There is, however, a much greater weight of bacon, the imports this year exceeding 1904 by 57,780 cwts., and 1903 by 208,340 cwts.

Imports for the first five months of 1905 were as follows, compared with the same period of 1904:

	1905.	1904.
Cattle head	220,936	212,349
Sheep, head	119,725	175,316
Beef, cwts.	1,958,586	1,823,659
Mutton, cwts.	1,630,539	1,408,805
Pork, cwts.	2,51,179	293,678
Bacon, cwts.	2,299,374	2,241,592

WOOL OIL NOT DUTIABLE AS GREASE.

The United States Board of General Appraisers has ruled that oil, distilled from yellow wool grease, which remains liquid at ordinary temperature and is used mainly for oiling wools in carding and combing operations, and which is not shown to be in truth and substance wool grease, is not embraced within the expression in paragraph 279, tariff act of 1897, "wool grease, including that known commercially as degrass or brown wool grease." Such merchandise is found dutiable as distilled oil.

RETAIL SECTION

DULUTH BUTCHERS ARE SUED.

The Duluth, Minn., Retail Butchers' Association has been sued by M. M. Gasser & Company, a retail meat firm of that city, who ask for an injunction to prevent the other retailers from combining to fix prices, etc. This firm has been fighting the butchers who are members of the association, and has apparently got the worst of it in the business competition. The wholesale meat dealers, the fish dealers, and even the grocers are included in the charges. It is charged that the butchers and meat men are in a "conspiracy" for a number of purposes, including the following:

"To fix and limit the prices at which meats and other commodities shall be sold and to enforce the price and limit so fixed.

"To prevent competition among the wholesalers and retailers of meats and other commodities in the city of Duluth.

"To monopolize the retail butcher business in the city of Duluth and that vicinity to members of the Retail Butchers' Association.

"To determine and fix what persons shall be permitted to retail meats and other commodities in the city of Duluth and that vicinity and to confine it to members of the Retail Butchers' Association.

"To force out of business all retail butchers at Duluth and in the vicinity of Duluth obnoxious to the combination and their representatives.

"To enhance the retail price of meats and other commodities, one of the necessities of life, and to fleece the public generally.

"To levy a tax on all persons who desire to do business as retail butchers in the city of Duluth and that vicinity."

BUTCHER SHOP ON WHEELS.

Travelling meat wagons are common in the country and suburban districts, but itinerant butchers are seldom seen in the cities. A Detroit, Mich., butcher is one of the first to try this sort of thing on an elaborate scale, and he appears to have made a success of it. His wagon is not the ordinary meat peddler's cart, but a well-equipped shop on wheels. He describes it himself as follows:

"I had a butcher shop on the corner of Lincoln and Kirby avenues for about eight months, and wasn't doing as good a business as I thought I should. One evening I was talking to a man downtown and he told me how they peddled meat at the houses down in Cincinnati. I went home, figured it out and decided to try it. In a few days I closed down my store and bought my new shop, which was originally a bakery wagon. My first day was very encouraging, and if this keeps up I'll have more than one wagon going. I only wish my invention was patentable, for I don't believe it will be long before I will have rivals. However, Detroit is a big field."

Inside the shop is fitted out with all modern butchering appliances in a compact form. In the front of the wagon is an ice chest with a capacity of upwards of 800 pounds of meat. The sides and back are lined with oil cloth, with hooks for cleavers, saws, etc. A meat grinder has a place, while there is plenty of room for a crate of eggs under what was originally the seat. The seat has been transformed into a chopping block and is kept in sanitary condition.

The butcher and his assistant stand up in the narrow space between the side doors in the middle of the wagon. The butcher relies on the "noisy" external decorations of his cart to attract attention to his wares and uses neither bell nor horn. Mr. McKenna claims that as a time and labor saver his plan is valuable to the average housewife. He contemplates instituting bargain-counter days, so that the ladies may have gentle excitement hereafter at their very doors.

RAW MEAT CURE FOR CONSUMPTION.

A report was recently presented to the French Academy of Sciences regarding a series of experiments conducted by Prof. Richet with a view to ascertaining the efficacy of a diet of raw meat as a cure for consumption. He made a number of dogs consumptive to the last degree, and then fed some of them on cooked meat, others only on raw meat, and the rest on milk and cheese. All the dogs in the first category quickly succumbed, and most of those in the third category also, but nearly all those fed on raw meat recovered.

HORSE WRECKED BUTCHER SHOP.

The butcher shop of Henry C. Schroeder, of Winnetka, Ill., was wrecked Saturday afternoon by a runaway horse, which broke through the large plate glass window in the front of the building. The horse broke from the control of its owner and suddenly dashed through the shop window, leaving the remains of the wrecked vehicle on the sidewalk. The animal was severely cut by the glass and was not subdued until it had done considerable damage to the fixtures of the place.

CUT STEAK THE WRONG WAY.

Joseph F. McEvoy, proprietor of a butcher shop at 526 Somerville avenue, Somerville, Mass., while cutting meat the other day accidentally stabbed himself in the groin with a sharp knife. He was slicing steak with the blade of the knife running toward him, when the edge slipped from a bone and penetrated his groin with considerable force. He was taken to the Somerville Hospital, where it was found that he was seriously wounded.

**SEE PAGE 48
FOR BARGAINS**

LOCAL AND PERSONALS.

H. P. Barger, of Clarkston, Wash., has sold his market to Prest & Clark.

L. E. Nichols has purchased the Boston Market in Vancouver, Wash., of R. Trisler.

Mr. Knox has sold his shop at Almira, Wash., to John Canady.

Lust, Marasch & Louglitz have purchased the market of Geo. Cottrell, at Endicott, Wash.

W. D. Graham, of Weiser, Ida., has sold his shop to S. H. Lee.

McGraw & Holliday have bought the market of Kearns & Ayers in Lookout, Ida.

L. Hensler has sold his market in Frances, Wash., and Leban, Wash., to Burgess & Peterson.

Jos. Gunerill has retired from the meat firm of Fred. Landreau & Company at Blackfoot, Ida.

White & Wills have been succeeded at Mounds, I. T., by Brown & Wills.

The death is reported of Fred. Atahr, a well known butcher of Hannibal, Mo.

Taylor & Conway, of La Salle, Colo., have sold their market to P. Horehkiss.

Cavanagh Bros., have purchased the market of W. E. Bishop in Sugar City, Colo.

A. T. Marshall, of Pocatello, Ida., has sold his shop to the Idaho Packing Company.

Robertson & Peterson have purchased the business in Lincoln, Neb., of E. V. Schwanenfeld.

A. R. Reynolds, of Bruning, Neb., has sold his shop to Malek Bros.

Anderson & Barten, of Farren, Utah, have been succeeded by John E. Barton.

K. L. Fisk has sold his market at Altoona, Kas., to Marshall & Hammet.

Jewell & Hageboom have purchased the business of Marshall & Roth at Goodland, Kas.

Grimes & Booths have succeeded to the meat business of P. H. Grimes, in Isabel, Kas.

C. H. Edminister has sold his shop at Princeton, Kas., to T. V. Ashley.

Howard & Troy, of Scotts Bluff, Neb., have purchased the meat business of Martin Montz.

The Central Market of Astoria, Ore., suffered a \$1,000 loss in a recent fire.

George Bleitz, of Sterling, Ill., has sold his Palace market on West Third street, to W. J. Mower. He keeps his market at Locust and Fourth streets.

W. I. Newcomer's market at Clearfield, Pa., was damaged to the extent of \$1,000 by a recent blaze.

Vincent Smigel's shop at Detroit, Mich., was damaged to the extent of \$1,000 by fire last week.

Carroll & Hunter will open a shop at Cornland, Ill.

Every retailer should read The National Provisioner.

PATTERSON DAY AT DAYTON.

Dayton, O., last Monday afternoon was the scene of a public celebration unique in the industrial history of the United States, when the entire city gave a public welcome to John H. Patterson, its leading manufacturer and president of the N. C. R. Company, on his return from a year's trip around the world. The afternoon had been a half holiday, stores and shops closing early that their employes might join in the demonstration. The business district of the city was elaborately decorated with American flags and with crimson and gold bunting, the Patterson Day colors.

Mr. Patterson, who landed in San Francisco the previous Tuesday and started almost immediately for home, was met at Richmond, Ind., by a delegation of fifty leading citizens, headed by Mayor Snyder and Hugh Chalmers, General Manager of the N. C. R. Company. A quick run was then made to Dayton, the party reaching there shortly before 5 o'clock. From the Union Station to the Steele High School, a distance of a little over half a mile, the progress of Mr. Patterson, accompanied by his escort in carriages, was an ovation such as is given to few men. The streets were lined with crowds of people, every one of whom had an American flag or a pennant of crimson and gold. The buildings were draped in bunting of the same rich colors, and across the streets at every corner were festooned long strands of bunting.

At the Steele High School a chorus of two hundred school children was assembled when Mr. Patterson and his escort took their places upon the platform. After a number of speeches of welcome a massive silver loving cup of beautiful design was presented to Mr. Patterson "on behalf of the citizens of Dayton in appreciation of his unusual achievements as the pioneer of welfare work." The women of Dayton were represented in the celebration by the presentation to Mr. Patterson of a memorial beautifully engrossed on parchment and bound in hand-tooled leather. This document recited what Mr. Patterson had done in improving the working conditions for women in his own factory and by force of example in many manufacturing establishments, both in America and abroad.

Mr. Patterson replied briefly to the addresses of welcome and the presentation speeches. He said that the welcome which the citizens of Dayton had given him was the greatest encouragement which a man could receive to carry out a policy which he believed right and which he hoped might have some influence in bettering the relations of employer and employe the world over.

The unique welcome accorded Mr. Patterson—a token of the appreciation of the whole city for a private citizen—was originally suggested by the Dayton Commercial Club, a leading business organization. The idea grew rapidly, however, until it involved a public reception by the entire population. The people fell in with the plan readily and the Patterson Day celebration, to an unusual extent, has been the expression of a general popular feeling. Committees of merchants had charge of the decorating, the purchase of the loving cup and other features of the occasion, while the principals of the public schools looked after the training of the children for the Patterson Day chorus. The

school teachers have felt the influence of Mr. Patterson's work to an unusual degree, for it was largely through his efforts and the efforts of the Men's Welfare Work League, an organization of his employes, that manual training, cooking and gardening were introduced in the Dayton schools.

Mr. Patterson has had a wide influence in the beautifying of Dayton, which led a noted French scholar, M. Benoit-Levy, to call it the "garden city of America." First making the factory grounds of the National Cash Register Company a model in landscape gardening, he has, by means of illustrated lectures, taught the people of his home city the principles of landscape gardening and home decoration.

What Mr. Patterson has done in the way of making factory work safe, pleasant and healthful, is widely known. Through him his employes possess beautiful homes, their children have the best of educational facilities, and they themselves enjoy the privileges of libraries, clubs and schools in which the ambitious are trained for higher things. These are the things for which John H. Patterson has stood. Misunderstood and even ridiculed in the past, he has now been vindicated by the people of his own community who know him best.

A SCHOOL FOR SALESMEN.

The following paraphrase of a paragraph from the Merchants' Review fits the retail meat business as aptly as it does the line for which it was intended. With the butcher substituted for the grocer it reads:

There's no school for salesmanship that beats a well-patronized butcher shop. The trials of the salesmen, owing to the failings of customers and the liveliness of competition caused by the tactics of nearby rivals of the salesmen's employer, make the butcher shop the best of schools and usually find the junior assistant an apt pupil. There is no form of trouble, no kind of obstacle, met in other trades that has not its duplicate in the meat trade. There is no customer harder to suit than the man or woman who has suffered from a spoiled meal, owing to a meat clerk's blunder. There is no form of "beat" more insidious and undetectable than the "beat" who "beats" the butcher. There is no business which calls for more knowledge of human nature than the meat trade calls for. It brings the salesman in contact with all classes of humanity, for while one class buys yachts and automobiles, and another class doesn't, we all buy meat.

KEEPING UP TO DATE.

We keep alive only so long as we keep on making an effort to go forward, says Fame. We all have a tendency to "settle down," but we do not realize that to settle down is just about as fatal as it would be for a swimmer. The real value and interest of business life lies in this. It is a gymnasium in which a man develops alertness. He simply can't lie back and be lazy. His competitors will have shot so far past him that he will be practically dead, if he tries it. He has to keep up, and if possible to keep ahead.

If a man does not want to dry up and wither away, he must shake himself free of the idea that to settle down is a privilege to be earned, a sort of reward of merit. The

man of affairs who would keep himself in trim must keep alert and up-to-date. There is an honest weariness which is not laziness, which should be heeded as a friendly warning, not crushed down. When a man's spirit cries out against the daily struggle and he begins to think it would be a welcome rest to be dead for awhile, he ought to stop trying to keep up-to-date, and rent an abandoned farm for a year. There are still places in the world where life is not strenuous. But tired nerves cannot make the rules for life. When the vacation is over, the normal man should be ready to do something again. The struggle should arouse in him the consciousness of power, the zest of life.

IN THE CATSKILL MOUNTAINS.

A very useful and instructive folder is issued by the West Shore Railroad for the purpose of supplying information to those who want to make a short trip, or who seek summer homes in the many delightful localities easily reached from New York and other eastern cities. Take, for instance, the Catskill Mountains. To have seen the rugged wonders of the Rocky Mountains, or gazed upon the grandeur of the Jungfrau, and not to have visited the less marvelous, perhaps, but none the less delightful and interesting mountain regions nearer home, is to be like the man who traveled the world over in quest of pleasure and, on his return home, found it awaiting him at his own fireside.

It is but four hours from New York to the heart of the Catskills, and the folder referred to contains, in addition to a valuable map, just the information that the average person needs for instruction or pleasure on the way, and for locating himself in a suitable hotel or boarding-house when he gets there. A copy of this folder will be sent free to any address on receipt of a two-cent stamp, by C. E. Lambert, General Passenger Agent, 7 East Forty-second street, New York.

Know what's in your by-products. Stillwell-Provisioner Laboratory, 36 Gold street, New York.

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Via PAGE 48 of THE NATIONAL PROVISIONER

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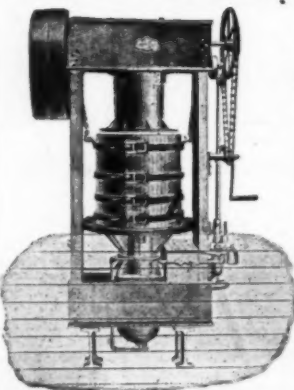
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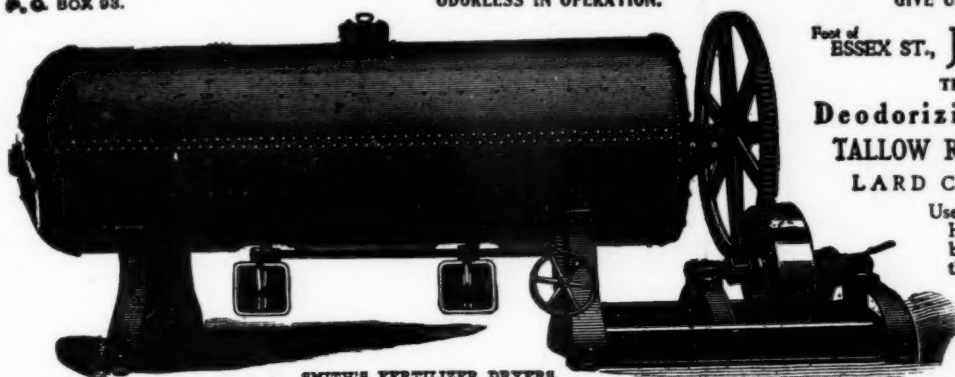
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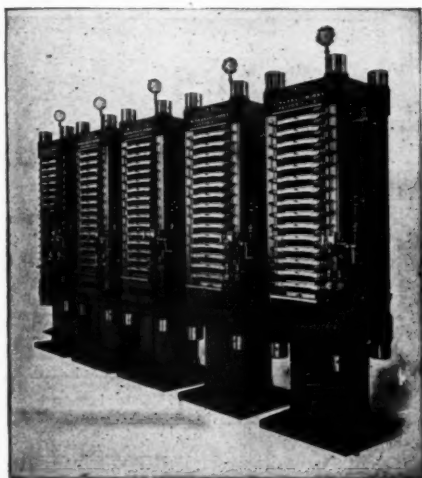
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OF ALL KINDS

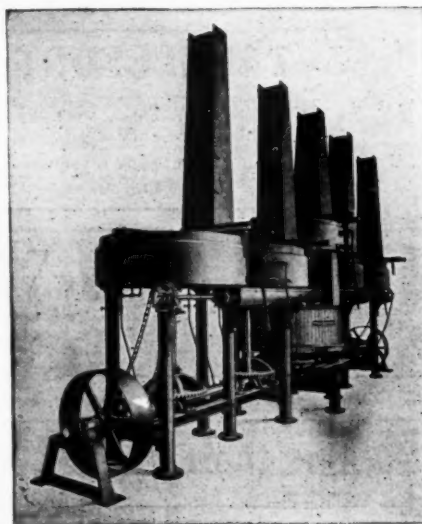
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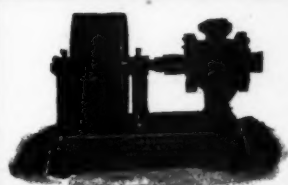
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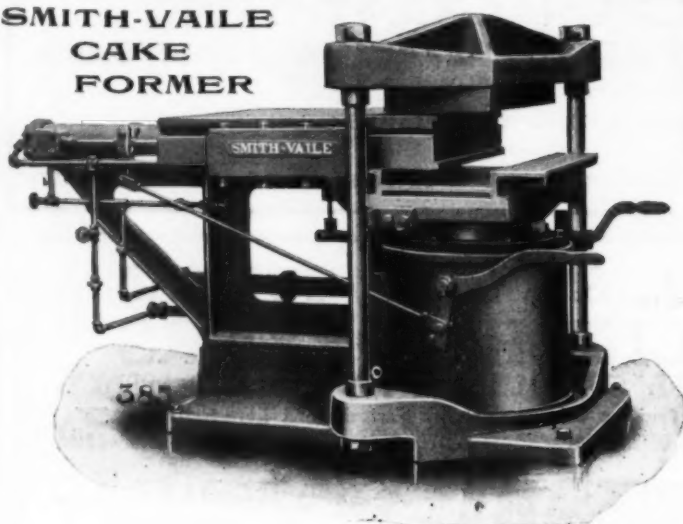
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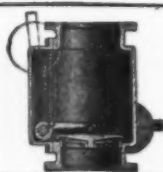
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TRADE

CAN ALWAYS

GLEAN BARGAINS

BY KEEPING AN EYE ON

PAGE 48

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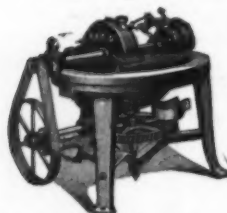
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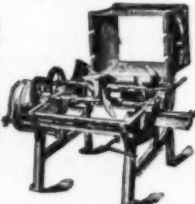


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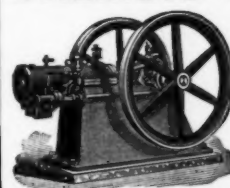


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Columbus
Machine
Company
COLUMBUS
OHIO

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Ammonia Co. of Philadelphia.
Armour & Company.
National Ammonia Co.

AMMONIA FITTINGS.

Buffalo Refrigerating Machine Co.
Creamery Package Mfg. Co.
Davies Warehouse & Supply Co.
De La Vergne Machine Co.
Triumph Ice Machine Co.

ARCHITECTS.

Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.
Comstock, C. B.
W. R. Perrin & Co.

BONE CRUSHERS.

Mechanical Mfg. Co.
Stedman Foundry & Machine Works.

BONE MILLS.

Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.
Mechanical Mfg. Co.
S. Oppenheimer & Co.

BORAX AND BORACIC ACID.

Pacific Coast Borax Co.
Welch, Holme & Clark Co.

BRINE COOLERS AND AMMONIA CONDENSERS.

Creamery Package Mfg. Co.
Mechanical Mfg. Co.
Triumph Ice Machine Co.

BUTCHERS' FIXTURES AND SUPPLIES.

Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.
Clarke Bros. & Co.
Lobee Pump & Machinery Co.
S. Oppenheimer & Co.
Ottenheimer Bros.
F. R. Plumb.
Smith's Sons Co., J. E.
Wolf, Sayer & Heller.

BUTCHERS, WHOLESALERS.

(See Pork and Beef Packers.)

BUTTERING.

Armour Packing Co.
Hammond Co., G. H.
Kingan & Co.
Morris & Co.

CANNING MACHINERY.

Brecht Butchers' Supply Co.
Wm. R. Perrin Co.

CANS.

Americas Can Co.
Brecht Butchers' Supply Co.
Heekin Can Co.

CAN TANKS.

Hammer Boiler & Tank Co.
National Cash Register Co.

CASINGS (SEE ALSO PACKERS).

Beckstein & Co.
Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.
Davidson Commission Co.
Haberkorn Bros.
Illinois Casing Co.
Levi, Berth & Co.
Morris, Nelson & Co.
Oppenheimer & Co., S.
Ottenheimer Bros.
Scheldebeg, H.
Swift & Company.
United Dressed Beef Co.
Wolf, Sayer & Heller.

CONVEYORS.

Alvey-Ferguson Co.
Allbright-Neil Co.
Gifford-Wood Co.
Hiles, C. A., & Co.
Jeffrey Manufacturing Co.
Perrin, W. R., & Co.

CHAMPAGNE.

Mumma, G. H., & Co.
Fommery.

CHEMISTS.

The Stillwell-Provisioner Analytical and Testing Laboratory.
COMMISSION MERCHANTS, BROKERS AND EXPORTERS.
(See also European Commission Merchants.)

Aspegren & Co.
Davidson Commission Co.
Davidson, Julius.
Dummett, Henry.
Field, Julian.
Johnson, W. B., & Co.
Wheeler, T. H., & Co.

COOPERAGE.

Washburn & Co., C. G.

COTTON OIL.

American Cotton Oil Co.
Aspegren & Co.
Davidson Commission Co.
Davies Warehouse & Supply Co.
Dummett, Henry.
Kentucky Refining Co.
Louisville Cotton Oil Co.
Procter & Gamble.
Southern Cotton Oil Co.
Welch, Holme & Clark Co.

COTTONSEED OIL MACHINERY.

Buckeye Iron & Brass Works.
Platt Iron Works.

DISINFECTANTS.

Brecht Butchers' Supply Co.
Farbenfabriken of Elberfeld Co.
Wolf, Sayer & Heller.

DISINTEGRATORS.

Stedman Foundry & Machine Co.

DRYERS.

(See also Fertilizer Machinery.)
American Blower Co.
American Foundry & Machinery Co.
American Process Co.
Bartlett & Co., C. O.

Brecht Butchers' Supply Co., G. V.
Cincinnati Butchers' Supply Co.
Hammer Boiler & Tank Co.
Wm. R. Perrin & Co.
Sturtevant Co., B. F.
Smith & Sons Company, Theodore.

ELECTRIC MOTORS.

Northern Elec. Mfg. Co.
Sturtevant Co., B. F.
Triumph Ice Machine Co.

ELEVATING AND CONVEYING MACHINERY.

Alvey-Ferguson Co.
Gifford-Wood Co.

Hiles, C. A., & Co.
Jeffrey Manufacturing Co.

ENGINEERS' SPECIALTIES.

Crane Co.
Jenkins Bros.
Lunkenheimer Co.

ENGINES AND BOILERS.

Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.
Frick Co.

Lombard Iron Works.
S. Oppenheimer & Co.

Wolf, Sayer & Heller.

EUROPEAN COMMISSION MERCHANTS.

Chants.

Tickle, W. W. (England).
Wall & Co., George.

EVAPORATORS.

American Foundry & Mach. Co.

EXHAUST FANS.

American Blower Co.
Sturtevant Co., B. F.

FANS AND BLOWERS.

American Blower Co.
Brecht Butchers' Supply Co.
Northern Elec. Mfg. Co.

FAT AND SKIN DEALERS.

Brand, Herman.
Page, C. S.
Regal Mfg. Co.

FERTILIZER MACHINERY.

American Process Co.
C. O. Bartlett & Snow Co.
Brecht Butchers' Supply Co., G. V.
Jeffrey Manufacturing Co.
Wm. R. Perrin & Co.
Platt Iron Works.

Lobee Pump & Machinery Co.
Smith & Sons Company, Theodore.
Stedman Foundry & Machine Works.
Thomas-Albright Co.

FUEL ECONOMIZERS.

B. F. Sturtevant Co.

FULLERS EARTHES.

Henry Newton Garrett.

GAS AND GASOLINE ENGINES.

Brecht Butchers' Supply Co., G. V.
Cincinnati Butchers' Supply Co.
Columbus Machine Co.
S. Oppenheimer & Co.

Otto Gas Engine Works.
Wolf, Sayer & Heller.

GRAPHITE PAINT.

Dixon Crucible Company, The.

GRAVITY CONVEYORS.

Alvey-Ferguson Co.

HAM BRANDERS.

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Cincinnati Butchers' Supply Co.
Mechanical Mfg. Co.
S. Oppenheimer & Co.

Wolf, Sayer & Heller.

HAM WRAPPERS.

Brecht Butchers' Supply Co.
S. Oppenheimer & Co.
Wolf, Sayer & Heller.

HEATING AND VENTILATING APPARATUS.

American Blower Co.
Sturtevant Co., B. F.

HIDES.

Brand, Herman.
Jos. Haberman.
Page, C. S.
Regal Mfg. Co.

ICE TOOLS, ELEVATORS AND CONVEYERS.

Gifford-Wood Co.
Hiles, C. A., & Co.

INSULATING MATERIALS.

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Bird, F. W., & Son.
U. S. Mineral Wool Co.
Standard Paint Co.

KETTLES.

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Cincinnati Butchers' Supply Co.
Mechanical Mfg. Co.

Wm. R. Perrin & Co.
Wolf, Sayer & Heller.

KNIVES.

Hiles, C. A., & Co.
Cincinnati Butchers' Supply Co.

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The Stillwell-Provisioner Analytical Laboratory.

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Albright-Neil Co.
Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.

John E. Smith's Sons Co.
Mechanical Mfg. Co.
Wolf, Sayer & Heller.

LARD PAILS.

American Can Co.
Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.

Oppenheimer, S., & Co.
Wolf, Sayer & Heller.

LARD PRESSES.

Boomer & Boschert Press Co.
Brecht Butchers' Supply Co.
Cincinnati Butchers' Supply Co.

Hydraulic Press Mfg. Co.
Mechanical Mfg. Co.
S. Oppenheimer & Co.

Wm. R. Perrin & Co.
Wolf, Sayer & Heller.

LARD REFINERS.

(See also Pork and Beef Packers.)
The W. J. Wilcox Lard & Ref's Co.

LOCKERS.

Merritt & Co.

MACHINERY FOR PACKING HOUSES.

Adt, J. B.
Allbright-Neil Co.
American Foundry & Machinery Co.

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Cincinnati Butchers' Supply Co.
Davies Warehouse & Supply Co.
Hammer Boiler & Tank Co.

Leonard, C. B., & Co.
Stedman Foundry & Mach. Co.
Higbie, F. K., Co.

Hurford, O. F.
Lobee Pump & Machinery Co.

Mechanical Mfg. Co.

Oppenheimer & Co., S.

Ottensheimer Bros.

Perrin, William R., & Co.

Plumb, F. R.

Smith's, John E. Sons Co.

Wolf, Sayer & Heller.

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Cincinnati Butchers' Supply Co.

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Wolf, Sayer & Heller.

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Wolf, Sayer & Heller.

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S. Oppenheimer & Co.
Wolf, Sayer & Heller.

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Sturtevant, B. F.

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Cincinnati Butchers' Supply Co.

U. S. Mineral Wool Co.

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Cincinnati Butchers' Supply Co.
Northern Electrical Mfg. Co.

Triumph Ice Mach. Co.

Sturtevant, B. F., Co.

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Buckeye Iron & Brass Works, The.
Taber Pump Co.

Lobee Pump & Machinery Co.
PACKERS' SUPPLIES.

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Higbie, F. K., Co.
Davies Warehouse & Supply Co.

PACKING.

Jenkins Bros.

PAINT.

Standard Paint Co.
PATENTS.

Wilson, H. B., & Co.

FIGS' FOOT SPLITTERS.

John E. Smith's Sons Co.
Mechanical Mfg. Co.

Wm. R. Perrin & Co.

PIPE, FITTINGS AND TOOLS.

Agar Packing Co.
Anglo-American Provision Co.

Armour & Co.

Armour Packing Co.

Beech-Nut Packing Co.

Dold Packing Co., Jacob.

Felin Company, John J.

Halligan, Thomas.

Halstead & Co.

Hammond, G. H., & Co.

Indianapolis Abattoir Co.

Kingan & Co., Ltd.

Libby, McNeill & Libby.

Morris Nelson & Co.

Morton-Gregson Co.

Morrell & Co.

N. Y. Butchers' Dressed Meat Co.

North American Provision Co.

North Packing & Provision Co.

Omaha Packing Co.

Roesch & Sons, Charles.

Robe & Brother.

Ruddy Bros.

Schwarzschild & Sulzberger Co.

Sinclair & Co., Ltd., T. M.

Stern & Son, Joseph.

St. Louis Dressed Beef & Prov. Co.

Swift & Company.

Trenton Abattoir Co.

United Dressed Beef Co.

POWER TRANSMISSION MACHINERY.

Jeffrey Manufacturing Co.

PRESERVATIVES.

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Oppenheimer & Co., S.

Wolf, Sayer & Heller.

PRESSES.

Brecht Butchers' Supply Co.
Buckeye Iron & Brass Works.

Cincinnati Butchers' Supply Co.

The Boomer & Boschert Co.

Hydraulic Press Mfg. Co.

Mechanical Mfg. Co.

Thomas-Albright Co.

Perrin, William R.

Wolf, Sayer & Heller.

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Halligan, Thomas.

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Morrell & Co.

Morton-Gregson Co.
Natural Food Co.

North American Provision Co.
Reed's Sons, C. H.

Roesch & Sons, Charles.
Springfield, Provision Co.

Wheeler Co., T. H.
Zimmerman, M.

PUMPS.

Buckeye Iron & Brass Works.
Cincinnati Butchers' Supply Co.

Lobee Pump & M. Co.
Mechanical Mfg. Co.

Wm. R. Perrin & Co.
Taber Pump Co.

REFRIGERATING MACHINES.

American Linde Refrigeration Co.

Automatic Refrigerating Co.

Brunswick Ref. Co.

Buffalo Refrigerating Machine Co.

Creamery Package Mfg. Co.

De La Vergne Machine Co.

Frick Co., The.

Remington Machine Co.

Triumph Ice Machine Co.

Vogt Machine Co., Henry.

F. W. Wolf Co.

REFRIGERATING MACHINE SUPPLIES.

Creamery Package Mfg. Co.

Triumph Ice Machine Co.

F. W. Wolf Co.

REFRIGERATING PIPE.

Creamery Package M

